

L 47745-65 EWT(1)/FCC GW

ACCESSION NR: AT5012856

UR/2648/65/000/022/0051/0059

22
24

B1

AUTHOR: Sitnikova, M. V.

TITLE: Atmospheric turbidity in Central Asia

SOURCE: Tashkent. Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy, no. 22 (37), 1965. Voprosy biometeorologii i aktinometrii (Problems in biometeorology and actinometry), 51-59

TOPIC TAGS: atmospheric turbidity, solar radiation attenuation, optical density, atmospheric transparency, atmospheric humidity, atmospheric aerosol

ABSTRACT: The purpose of this work was to estimate the atmospheric transparency in Central Asia from data obtained over a 6-year period at 0930, 1230, and 1530 at the stations at Takhia-Tash, Termez, Churuk, Beki-Bent, and Gasan-Kuli. Relationships have been obtained (in the form of curves) between the primary solar radiation, absolute humidity, and visibility from observations on days with cloud covers of ≤ 2 units. Measurements are reduced to $h = 60^\circ$ and to the mean sun-earth distance. Correlation coefficients for the Beki-Bent, Gasan-Kuli, and Takhia-Tash stations were 0.94, 0.95, and 0.90 respectively. The article also contains the annual variation in the turbidity coefficient N (as defined by L. G. Makhotkin, Trudy GGO,

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no. 80, 1959) (tabulated), the annual variation of parameter α introduced by Ye. A. Lopukhin (Izv. AN UzbSSR, no. 6, 1963) (tabulated) for estimating the attenuation of the direct solar radiation by water vapor and aerosols, a chart showing the geographic distribution of the turbidity index (month of July) (see Fig. 1 of the Enclosure), graphs of the optical density for three high-altitude stations, a graph of transparency versus turbidity, and the annual variation of the coefficient describing the variation in optical density with altitude (tabulated). Orig. art. has: 2 formulas, 4 figures, and 5 tables. [08]

ASSOCIATION: Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut, Tashkent (Central-Asian Scientific Research Institute of Hydrometeorology)

SUBMITTED: 00

ENCL: 01

SUB CODE: ES

NO REF Sov: 005

OTHER: 000

ATD PRESS: 4005

Card 2/3

SITNIKOVA, N.N.

Specificity of the precipitation test with haptens for the detection
of *Eberthella typhi* in water. Gig. i san. 25 no.4:63-66 Ap '60.
(MIRA 13:8)

1. Iz Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei
AMN SSSR.
(WATER—BACTERIOLOGY) (EBERTHELLA TYPHOSA)

BULATOVA, T.I., kand.med.nauk; SITNIKOVA, N.N., nauchnyy sotrudnik;
SERGEYEVA, T.I., nauchnyy sotrudnik

Prevention and treatment of botulism. Med. sestra 20 no.6:23-26
Je '61. (MIRA 14:7)

1. Iz Institut epidemiologii i mikrobiologii imeni N.F.Gamalei
AMN SSSR, Moskva.
(BOTULISM)

IVANOVA, L.G.; SERGEYEVA, T.I.; PLOSKIREV, N.V.; SITMIKOVA, N.N.

Dry medium for the diagnosis of food poisoning caused by Clostridium botulinum and Clostridium perfringens. Lab. date 8 no. 4:33-36 Ap '62.
(MIRA 15:5)

1. Institut epidemiologii i mikrobiologii imeni N.F.Gamalei AMN
SSSR (dir. O.V.Baryan).
(FOOD POISONING) (CLOSTRIDIUM)
(BACTERIOLOGY--CULTURES AND CULTURE MEDIA)

REF ID: A7517 RPT(1) SCS DD/RD/JK/GD
ACC N# AT6630586

SOURCE CODE: UR/0000/66/000/000/0213/0213

AUTHOR: Konygrevskaya, G. I.; Kolovskova, Yu. S.; Sitnikova, N. N.; Chizhov, S. V.;
Puk, A. P.

ORG: none

TITLE: The question of drinking water preservation with ion silver [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 213

TOPIC TAGS: life support system, water purification, silver ion, space nutrition

ABSTRACT: A water-preservation method suitable for spaceflight must keep the taste qualities of drinking water, while preventing development of microflora even after secondary contamination. Most physical methods of disinfecting water can only be used immediately before drinking, since they have an insufficient aftereffect. Biological purification methods are not presently used because of the unfavorable effects of antibiotics on the human organism. The most effective and least toxic of the chemical preservatives are silver preparations.

Experimental data are presented from a 1961-1965 study of the

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L 10969-67

ACC NR: AT6036586

properties of ionic silver as a drinking-water preservative. It was established that the minimum silver dose which ensures a stable bactericidal effect for six months is a dose of 0.1 mg/liter. Doses of silver ions ten or more times larger than the minimum bactericidal dose did not have a toxic effect on experimental animals. Human consumption of water preserved with silver ions in a dose of 0.1 mg/liter for 15 days did not result in any pathological shifts in the functional condition of those organs and systems most susceptible to the effect of silver.

Experimental material demonstrates the effective preserving qualities of silver ions and the absence of a toxic effect of the preservative on human and animal organisms. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 2/2

SITNIKOVA, O. A.

"Reasons for the Rapid Loss of Germination in Seeds of the Poplar and Willow," Dok. An.,
70, No. 4, 1950. Nbr., Moscow State Pedagogical Inst., -c1950-.

SITNIKOVA, O. A.

Cand. BiologicalSci.

"Ecologophysiological Study of the Conditions of Rest in Plants."
Sub 12 Apr 51, Moscow Oblast Pedagogical Inst.

Dissertations presented for science and engineering degrees in
Moscow during 1951.

SO: Sum. No. 480, 9 May 55

GENKEL', P.A., professor, doktor biologicheskikh nauk; SITNIKOVA, O.A., kandidat
biologicheskikh nauk.

Experiments in the study of winter dormancy in plants. Est.v shkole no.6:24
32 '53. (MLRA 6:10)
(Botany--Physiology) (Plants--Frost resistance)

GENKEL', P.A.; SITNIKOVA, O.A.

State of dormancy and frost resistance of plants. Trudy Inst.
fiziol. rast. 8 no.1:276-288 '53. (MLRA 6:12)

I. Institut fiziologii rasteniy im. K.A.Timiryazeva Akademii
nauk SSSR, Moskovskiy oblastnoy pedagogicheskiy institut.
(Plants--Frost resistance) (Botany--Physiology)

GENKEL', P.A.; SARYCHEVA, A.P.; SITNIKOVA, O.A.

Effect of variable temperature seed treatment on corn development
and ripening. Fiziol.rast. 2 no.5:447-453 S-0 '55. (MLRA 9:2)

1.Kafedra botaniki Moskovskogo oblastnogo pedagogicheskogo insti-
tuta.
(Corn (Maize)) (Plants, Effect of temperature on)

SITNIKOVA, O.A.

Effect of gibberellic acid on some properties of the protoplasm.
Fiziol. rast. 9 no.1:109-111 '62. (MIRA 15:3)

1. N.K.Krupskaya Moscow Region Pedagogical Institute.
(Protoplasm) (Plants, Effect of gibberellic acid on)

AUTHORS:

Savitskaya, Ya. S., Gurevich, M. A., Kalabukhova, S. V.
 Sitnikova, S. I.

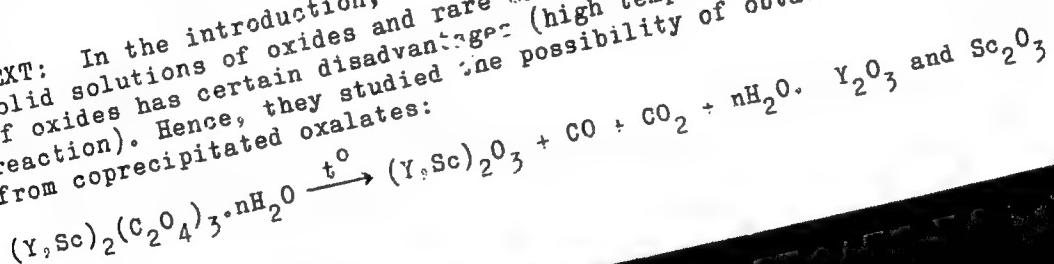
S/078/60/005/010/013/021
 B004/B067

TITLE:

The Problem of the Formation of Solid Solutions in the System $\text{Y}_{2}\text{O}_3 - \text{Sc}_2\text{O}_3$ by Means of Thermal Decomposition of the Isomorphously Coprecipitated Yttrium - Scandium Oxalate

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 10,
 pp. 2300-2306

TEXT: In the introduction, the authors point out that the formation of solid solutions of oxides and rare earths by sintering directly mixtures of oxides has certain disadvantages (high temperatures, long duration of reaction). Hence, they studied the possibility of obtaining such solutions from coprecipitated oxalates:



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The Problem of the Formation of Solid
Solutions in the System $Y_2O_3 - Sc_2O_3$ by Means
of Thermal Decomposition of the Isomorphously
Coprecipitated Yttrium - Scandium Oxalate

S/078/60/005/010/013/021
B004/B067

were used as initial substances. By heating them to 1000°C, their impurities were removed (for analytical data see Table 1). They were dissolved in hydrochloric acid "pure pro analysi", evaporated, and 0.1 M solutions were obtained. Mixtures of these chlorides at a molar ratio (related to oxide) of $Y_2O_3 : Sc_2O_3$ from 1 : 1.64 to 4 : 1.64 were heated to 95°C and precipitated by means of chemically pure oxalic acid of the same temperature. (Table 2). The thermal decomposition curves of pure yttrium and scandium oxalates, as well as of the coprecipitated oxalate were taken (Fig. 1, Table 3). In contrast to the temperatures at which the mechanical mixtures of the pure oxalates start decomposing, the decomposition temperature of the coprecipitated oxalate was between the temperatures for pure oxalates. The pure oxalates and the coprecipitated oxalate were heated to 900°C, and their X-ray pictures were taken. The values for Y_2O_3 are given in Table 4. As may be seen from Table 5 and Fig. 2, a continuous series of solid solutions of the oxides is formed, with the lattice constant changing steadily from $a = 10.61 \text{ kX}$ (pure Y_2O_3)

Card 2/3

SITNIKOVA, T.A.; KEYLIN, G.S.

Properties of Kh13N409 stainless steel in drawing. Med.prom. no.3:
(MIRA 9:12)
35-36 J1-S '55.

1. Mediko-instrumental'nyy ordena Lenina zavod "Krasnogvardeyets."
(APPARATUS AND INSTRUMENTS,
stainless steel)

SOV/137-58-9-19996

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 272 (USSR)

AUTHORS: Sitnikova, T.A., Keylin, G.S., Lozovskiy, V.L.

TITLE: Effect of Heat Treatment on the Properties of 2Kh13 Stainless Steel (Vliyanie termicheskoy obrabotki na svoystva nerzhavayushchey stali 2Kh13)

PERIODICAL: Materialy po obmenu optyom i nauchn. dostizh. v med. prom-sti, 1957, Nr 6 (25), pp 110-112

ABSTRACT: Ref. RZhMet, 1958, Nr 6, abstract 13443
1. Stainless steel--Properties 2. Stainless steel--Heat treatment
3. Heat--Metallurgical effects

Card 1/1

SITNIKOVA, T.A.; KEYLIN, G.S.; LOZOVSKIY, V.L.

Effect of heat treatment on the properties of 2Kh13 stainless steel.
Med.prom. 11 no.9:25-29 S '57. (MIRA 10:12)

1. Mediko-instrumental'nyy ordena Lenina zavod "Krasnogvardeyets"
(STEEL, STAINLESS--HEAT TREATMENT)

SITNIKOVA, T.A.; KEYLIN, G.S.

Increasing the strength of matrixes for automatic cold-upsetting
machinery and drew dies. Med.prom.12 no.3:47-48 Mr '58. (MIRA 11:4)

1. Mediko-instrumental'nyy ordena Lenina zavod "Krasnogvardeyets".
(DIES (METALWORKING))

SITNIKOVA, T.A.; KEYLIN, G.S.; LOZOVSKIY, V.L.

Manufacture of tools by the weld seam method using I-2 electrodes.
Med.prom. 14 no.2:31-33 F '60. (MIRA 13:5)

1. Mediko-instrumental'nyy zavod "Krasnogvardeyets".
(TOOLS)

SITNIKOVA, T.A.; KEYLIN, G.S.

Some results of the work of the industrial and technical council
of the "Krasnogvardeets" Factory. Med.prom. 14 no.4:44-46 Ap
'60. (MIRA 13:6)
(INDUSTRIAL MANAGEMENT)

SITNIKOVA, T.A.; LOZOVSKIY, V.L.

Manufacture of instruments from EL-603 steel. Med. prom. 14 no.9:
54 S '60. (MIRA 13:9)

1. Mediko-instrumental'nyy zavod "Krasnogvardeyets".
(MEDICAL INSTRUMENTS AND APPARATUS)

SITNIKOVA, T.A.; KEYLIN, G.S.

Production of ocular trephines from Kh18 stainless steel.
Med. prom. 16 no.2:50-52 F '62. (MIRA 15:3)

1. Mediko-instrumental'nyy zavod "Krasnogvardeyets".
(SURGICAL INSTRUMENTS AND APPARATUS)
(STEEL, STAINLESS)

SITNIKOVA, T.A.; KEYLIN, G.S.; LOZOVSKIY, V.L.

Raising the quality of springs for medical instruments. Med. prom.
16 no.3:48-50 Mr '62. (MIRA 15:5)

1. Mediko-instrumental'nyy zavod "Krasnogvardeyets".
(MEDICAL INSTRUMENTS AND APPARATUS)

KEYLIN, Grigoriy Samuilovich; LOZOVSKIY, Vladimir L'vovich; SITNIKOVA,
Tamara Aleksandrovna; MIKHAYLOV-MIKHEYEV, P.B., red.,
TELYASHOV, R.Kh., red.izd-va; GVIERTS, V.L., tekhn. red.

[Effect of heat treatment of the properties of chromium stain-
less steels; from practices at the "Krasnogvardeets" Plant]
Vliianie termicheskoi obrabotki na svoistva khromistykh nerzha-
veiushchikh stalei; opyt zavoda "Krasnogvardeets." Leningrad,
1963. 17 p. (Leningradskii dom nauchno-tekhnicheskoi progra-
mmy. Seriya: Metallovedenie i termicheskaiia obrabotka, no.1)
(MIRA 16:8)

(Steel, Stainless--Heat treatment)

14(10)

SOV/112-59-3-4663

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 3, p 53 (USSR)

AUTHOR: Sitnikova, T. F.

TITLE: Foreign Methods of Large-Cross-Section Tunneling Work
(Zarubezhnyye metody sooruzheniya tunneley bol'shogo secheniya)

PERIODICAL: V sb.: Energ. str-vo. Vol I, M.-L., 1958, pp 54-58

ABSTRACT: Bibliographic entry.

Card 1/1

KOMISSAROV, S.M., inzh.; SITNIKOVA, T.F., inzh.

New design of electric high frequency drives. Izobr. i rats.
3 no.5:18-20 My '58. (MIRA 11:9)
(Electric driving)

183100 1436 1454 only

S/136/61/000/001/008/010
E193/E283

AUTHORS:

Glukhov, V.P., Sitnikova, T.G., and Fedotov, I.A.

TITLE:

Recovery of Selenium from Slimes by the LGI Method on
Pilot Scale Plant

PERIODICAL: Tsvetnyye metally, 1961, No.1, pp.83-84

TEXT: A method, based on oxidizing roasting of granulated slimes followed by absorption of selenium anhydride by a separate layer of hot sodium carbonate, has been developed at the Leningrad-skiy Gorniy Institut (Leningrad Mining Institute). The selenium-bearing compounds, obtained in this manner, can be processed either by precipitation of selenium from acidic solutions, or by reduction and precipitation of selenium from selenide solutions. The main advantage of this process over the current method of roasting an intimate mixture of slime and sodium carbonate is that higher recovery of selenium is attained in fewer operations, whereby the consumption of materials and electric power is reduced. In pilot plant scale trials, conducted in August and September, 1960 at one of the Soviet Works, slimes from electrolytic refining of copper, containing 6.0-8.0% Se, 1.0% Te, 19-20% Cu, 25% Ni, 1.5% Fe, 3.0% S,

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S/136/61/000/001/008/010
E195/E283

Recovery of Selenium from Slimes by the LGI Method on Pilot Scale
Plant

and 25-30% H₂O, were used as the raw material. The main constituents of the slimes were copper and nickel oxides, 85% of nickel being present in the form of bunsenite, NiO. Selenium was present as Ag₂Se and partly in the form of selenides of the platinum metals. The roasting plant consisted of an air heater, a slimes roasting furnace, 2 (1st and 2nd) sodium carbonate furnaces for absorption of selenium, heat exchanger for gases; 2 vacuum pumps, and a pan granulator for pelletizing the raw materials. After preliminary drying (in a vacuum drier) to a moisture content of 15-16%, the slimes were converted to granules 3-10 mm in diameter. Sodium carbonate was granulated in a similar manner after preliminary moistening to a moisture content of 30-33%; and both materials (in the wet state) were then charged into the furnace. After all leaks had been sealed with asbestos tape, the vacuum pump and the roasting furnaces were switched on. At the same time, the fire box of the heater was ignited and air, pre-heated to 600-700°C, was fed into the furnace. In the new method, the heat required for roasting the

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S/136/61/000/001/008/010
E193/E283

Recovery of Selenium from Slimes by the LGI Method on Pilot Scale
Plant

charge is supplied mainly by air, the heating elements of the electric furnace serving only to compensate the heat losses. The operating temperature of 620-650°C is attained in 2-3 h. The charge is roasted in a stationary layer (no rabbling is employed), the duration of the process depending on the specific air consumption per unit weight of slime which, in this particular case, amounts to 5-6 m³/kg. With 800-900 kg (dry weight) of slime charged in the furnace, operating at 620-630°C, the specific air consumption of 6 m³/kg of slime is sufficient to ensure that all selenium di-oxide is distilled off from the charge; the selenium content in the slime residues being 0,01-0,1%. 90% of selenium present in the gaseous phase is absorbed by the first layer of sodium carbonate which, after the completion of the process, contains 20-21% selenium. After roasting, the furnaces are cooled and discharged. The slime residue is subjected to further processing, and the selenium-rich sodium carbonate (from the 1st furnace) is transferred to the selenium shop, where it is dissolved in water, after which selenium is precipitated (with sulphur dioxide) from the acidified solution.

X

Card 3/4

S/136/61/000/001/008/010
E193/E283

Recovery of Selenium from Slimes by the LGI Method on Pilot Scale Plant

Sodium carbonate from the 2nd furnace is used again until it becomes saturated with selenium. At present, work is being completed on designing an industrial plant (expected to be in operation at the beginning of 1961) for recovery of selenium from slimes by the process described above.

X

Card 4/4

GLUKHOV, V.P.; SITNIKOVA, T.G.; FERBERG, M.B.

Selenium recovery from the granulated copper slime from industrial
roasting furnaces. TSvet. met. 36 no.3:83-84 Mr '63. (MIRA 16:5)
(Selenium--Metallurgy)

GLUKHOV, V.P., SITNIKOVA, T.G., FEDOTOV, I.A.

Selenium recovery from slags by a method devised by the Lenin-
grad Mining Institute with pilot-plant equipment. Tsvet. met.
34 no.1.83-84 Ja '61. (MIRA 17:3)

SITNIKOVA, V. P., Master Med Sci --(ussr) "The importance of the electrocardiograph
in diagnosing children's congenital heart diseases." Moscow, 1957, 41 pp.
(Second Moscow State Med Inst im. N. I. Pirogov), 200 copies
(Ab, K. 40, 1957, p.96)

Effects of the concentration of emulsifiers and of the stirring speed on the stability of oil emulsions. N. I. Kozin and E. N. Sitiikova, *Voprosy Pidnizaniia*, 8, No. 4, 30-7 (1939); *Zh. C. Kh.*, 23, 2004. — The stirrer speed was variable from 000 to 1200 r./min. Oil was added at the rate of 100 cc. every 215 sec. Aq. solns. of dry albumin (I), egg yolk (II), Na caseinate (III) and casein lactate (IV) were used as emulsifiers. At 1200 r./min. in emulsions with I or III in concns. of 0.25% (per aq. phase) the sepn. occurs at a water-oil ratio of 1:3.3. With IV (0.25%) the sepn. occurs at 1:4.2. With III at 5% the emulsion seps. at 1:15.4. With IV at 5% the relation is 1:10.8. At higher concns. of the emulsifiers the sepn. occurs at a lower oil content. The lowering of the amts. of oil causing sepn. depends, according to the concn. of the emulsifiers, on the abs. increase of the amt. of emulsifier and the decrease of the amt. of water per unit of vol. of the soln. in relation to the amt. of emulsifier. In the emulsifiers studied the dispersion depends also on the stirring speed. Thus the amt. of water bound to the emulsifier is linked with the degree of dispersion. The unadsorbed water decreases with increased emulsifier concn. and stirring speed. Addn. of the first portions of oil decreases the concn. to a point where the adsorption layer becomes undersatd. and a slight excess of oil will cause the appearance of rarefied films lacking the proper mech. strength for protection.

T. Landes

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CIA-RDP86-00513R001550910017-2"

KOZIN, N.I.; SITNIKOVA, Ye.N.

Effect of phosphatides on the processes taking place in vegetable oils during storage. Izv.vys.ucheb.zav.; pishch.tekh.no.5:24-30
'60. (MIRA 13:12)

1. Moskovskiy institut narodnogo khozyaystva imeni G.V.Plekhanova.
Kafedra tovarovedeniya.prodovol'stvennykh tovarov.
(Oils and fats--Storage) (Phosphatide)

KOZIN, N., prof.; SITNIKOVA, Ye.

Storage of liquid oils and fats in a carbonic acid atmosphere.
Sov.torg. 33 no.1:51-53 Ja '60. (MIR 13:4)

1. Laboratoriya zhivotnykh Institutu narodnogo khozyaystva
imeni Plekhanova.
(oils and fats)

KOZIN, N.I.; SITNIKOVA, Ye.N.

Storing liquid fats in an atmosphere of carbon dioxide. Izv.
vys.ucheb.zav.; pishch.tekh. no.6:20-24 '62. 1961
(MIRA 13:5)

1. Moskovskiy institut narodnogo khozyaystva imeni G.V.
Plekhanova. Laboratoriya zhirov.
(Oils and fats--Storage) (Carbon dioxide)

EINIS, V.L.; SITNIKOVA, Yu.Z. (Moskva)

Differentiation of round tubercular foci. Klin.med. 3⁴
no.8:49-59 Ag '56. (MIRA 12:8)

1. Iz Moskovskoy gorodskoy tsentral'noy klinicheskoy tuber-
kul'eznoy bol'nitsy.
(TUBERCULOSIS, PULMONARY, pathol.
classif. of circular foci)

SITNIKOVA, Yu.Z. (Moskva)

Cavernous forms of peripheral lung cancer. Klin.med. 36
no.12:64-67 D '58. (MIRA 12:6)

1. Iz Moskovskoy gorodskoy tsentral'noy klinicheskoy tuberkuleznoy bol'nitsy (nauchnyy rukovoditel' - prof.V.L.Eynis).
(LUNG NEOPLASMS, case reports
peripheral, cavernous forms (Rus))

S. TN. Kout, Z. I.

USSR/Geology

Card 1/1 : Pub. 22 - 38/44

Authors : Sitnikova, Z. I.

Title : Discovery of effusions of the Cenozoic era in the Chelyabinsk Coal Basin

Periodical : Dok. AN SSSR 98/6, 1023-1025, October 21, 1954

Abstract : Report on the discovery of Cenozoic era effusions in the Chelyabinsk Coal Basin of the USSR is presented. Four USSR references (1949-1954).

Institution : Academy of Sciences U.S.S.R., Ural Branch, Geological-Mining Institute

Presented by: Academician A. G. Betekhtin, August 11, 1954

SITNIKOVA, Z. I.

Cross section of Upper Cretaceous marine sediments in ~~the~~
Southern Urals. Trudy Gor.-geol. inst. UFAN SSSR no. 61:49-62
'61. (MIRA 15:10)

(Ural Mountains--Geology, Stratigraphic)
(Deep-sea deposits)

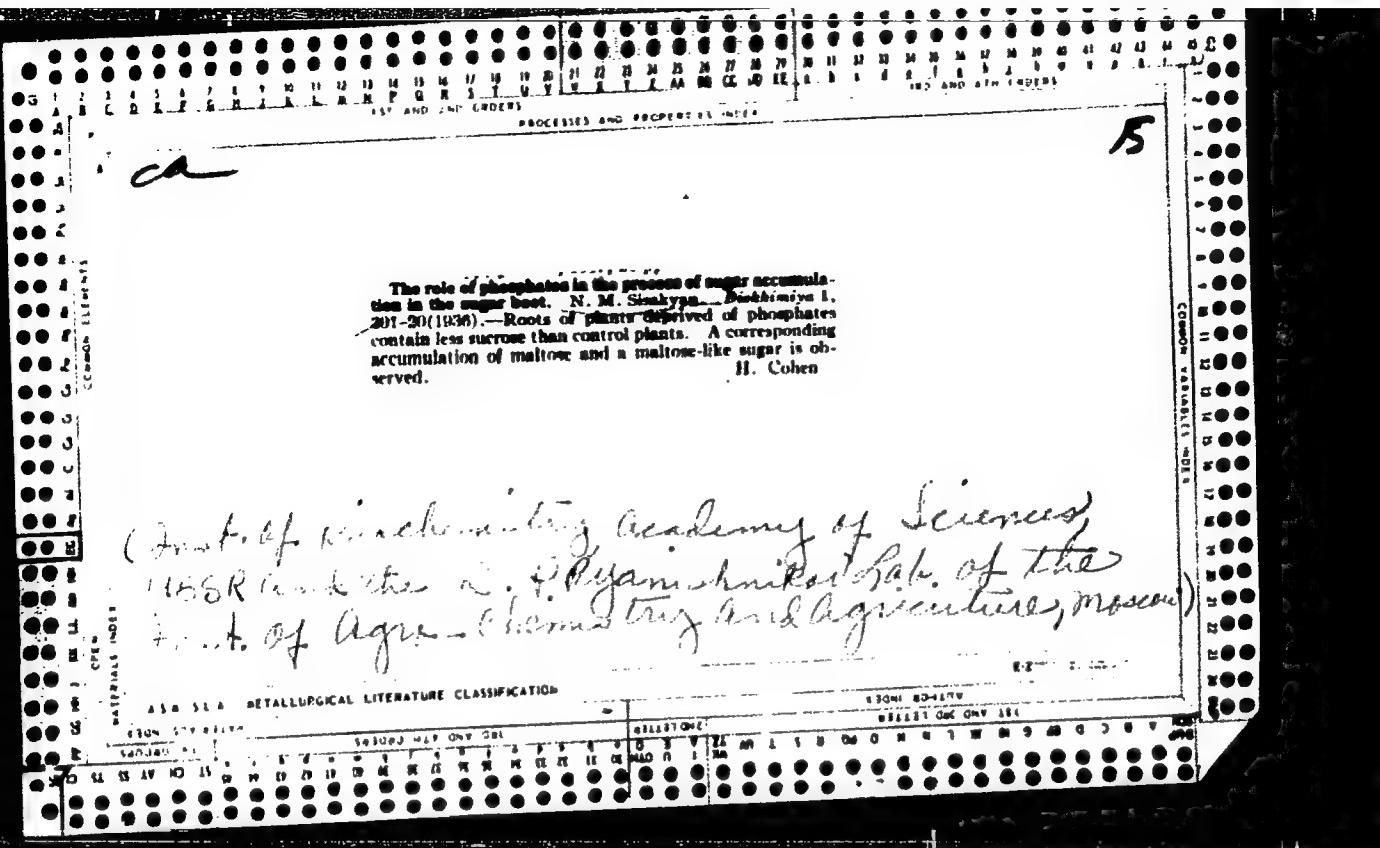
14. 01. 71, Georgiy Nikolayevich (TH) NVA, Zoya Ivanovna ARKHANGEL'SKIY,
N.I., stvarej.

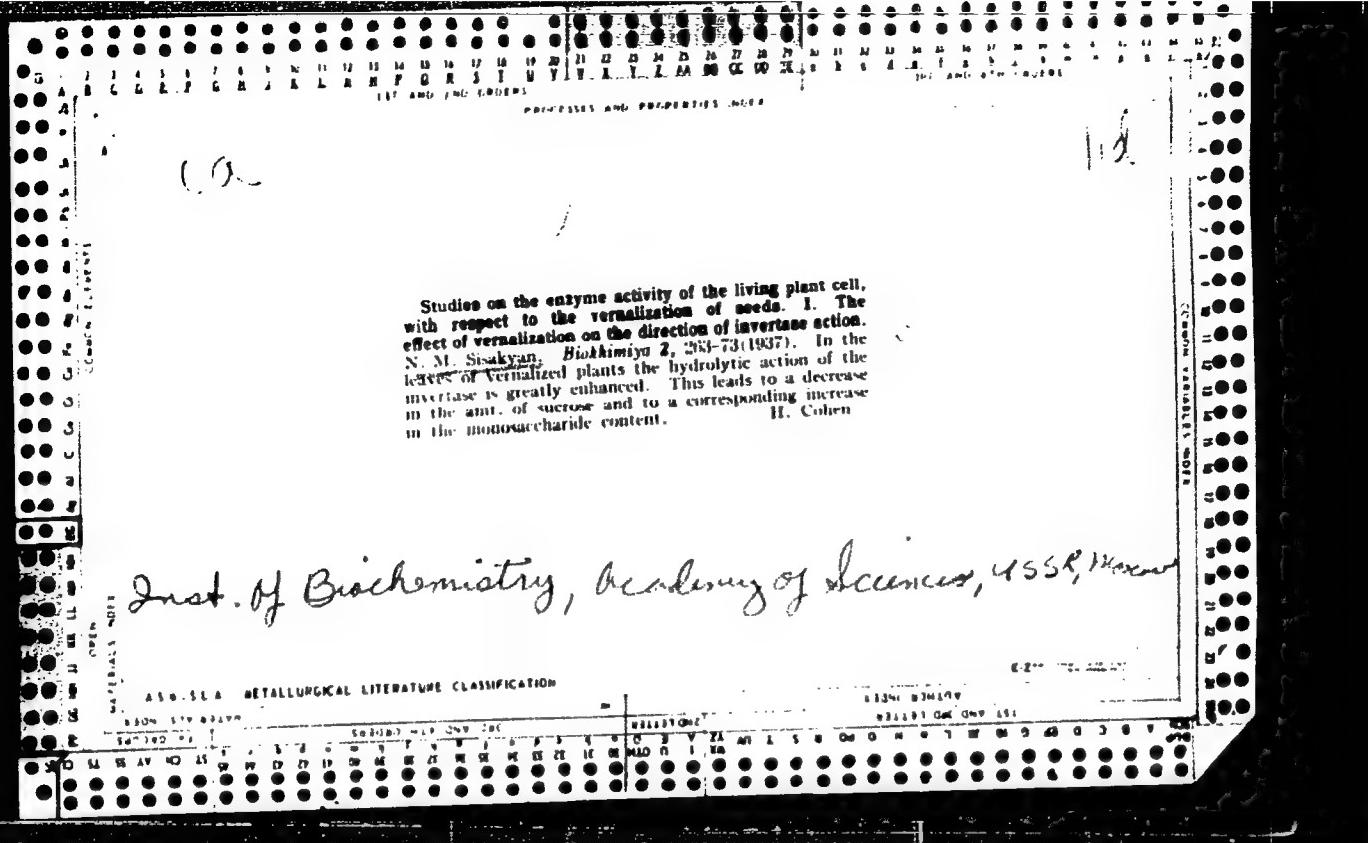
(Mesozoic and Paleogene sediments in the region of the Turinsk
key well in the Central Ural Mountains). Naizot'skie i paleoge-
novye otscheshennia nauro Turinskoi operno skvazhiny v Sredнем
Uraule [Geologicheskaya, 1961, 97 p. (Akademii nauk SSSR. Ural'skii
filial, Sverdlovsk. Institut geologii. Trudy, no.68).
(MIRA 1787)

ИППОЛЯХ, Г. А.

"Mycorrhiza of Varieties of Trees and Bushes in Primorskiy Kray."
Cand Biol Sci, Far Eastern Affiliate, Acad Sci USSR, Vladivostok, 1953.
(VZhBiol, No 1, Sep 54)

SO: Sum 432, 2 Mar 55





The prevailing direction of enzymic action as an index of drought resistance in cultivated plants. I. The prevailing direction in drought-resistant and nonresistant strains of wheat. N. M. Sivakyan. *Biofizika* 2, 187-191 (1957).—The synthetic and hydrolytic activity of the invertase was studied by the infiltration method in a number of plants of varying drought resistance, at various degrees of humidity, produced artificially. The invertase action side. The shift is less in drought-resistant strains, which, by this method, are easily differentiated from non-resistant types.

Geological Inst. of the Acad. of Sciences, 1955 £,

missouri

moscow!
ASB-SEA METALLURGICAL LITERATURE CLASSIFICATION
ADM 579 83.VN 181023 447 300 GOL

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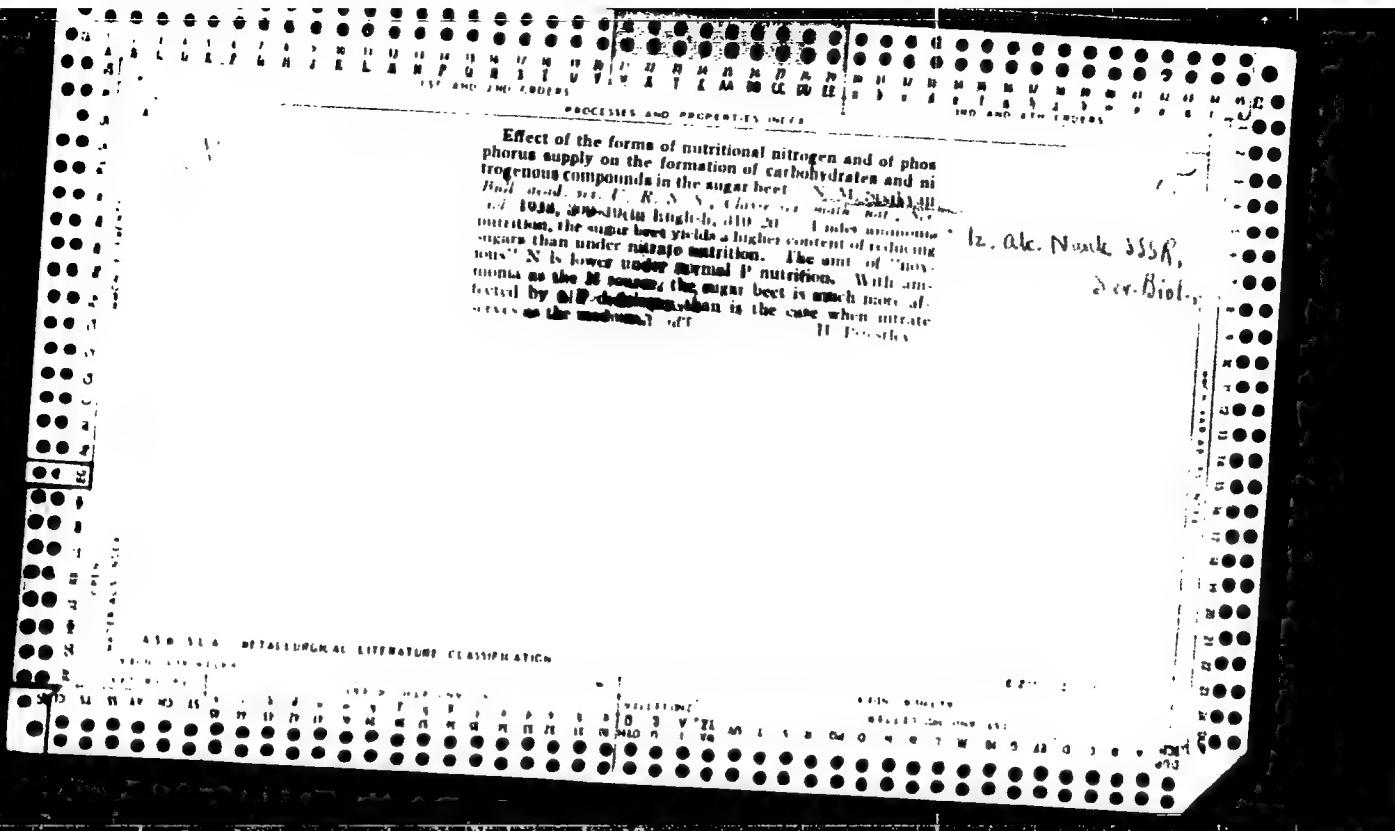
*Ca**11D**Dokl. AN SSSR,*

Measurement of the oxidizing-reducing power of the living vegetable tissue. B. A. Rubin, N. M. Sisakian and O. I. Lutikova. *Compt. rend. acad. sci. U. R. S. S.* 15, 490-6 (1967) (in English).— Of a no. of plants studied the highest power of reducing the dehydro-form of ascorbic acid is possessed by the leaves of the cabbage (I) and those of *Morangania hantzevia* (II). The leaves of *Cyclamen persicum* (III) and *Zea mays* (IV) are very inactive in this respect. In spite of the exceptionally high reducing power of ascorbic acid, the oxidation of the latter in living tissue proceeds very slowly, owing, to all appearances, to the presence therein of powerful protective systems. Under these circumstances, no oxidation can be produced except as a result of disturbing the equil. between the oxidized and reduced form of the vitamin in the tissue, as, for instance, by mitration. The ratios of oxidizing to reducing power of I, II, III and IV are 2.0, 2.8, 5.0 and 1.3, resp.

W. J. Peterson

AMERICAN DETAILED LITERATURE CLASSIFICATION

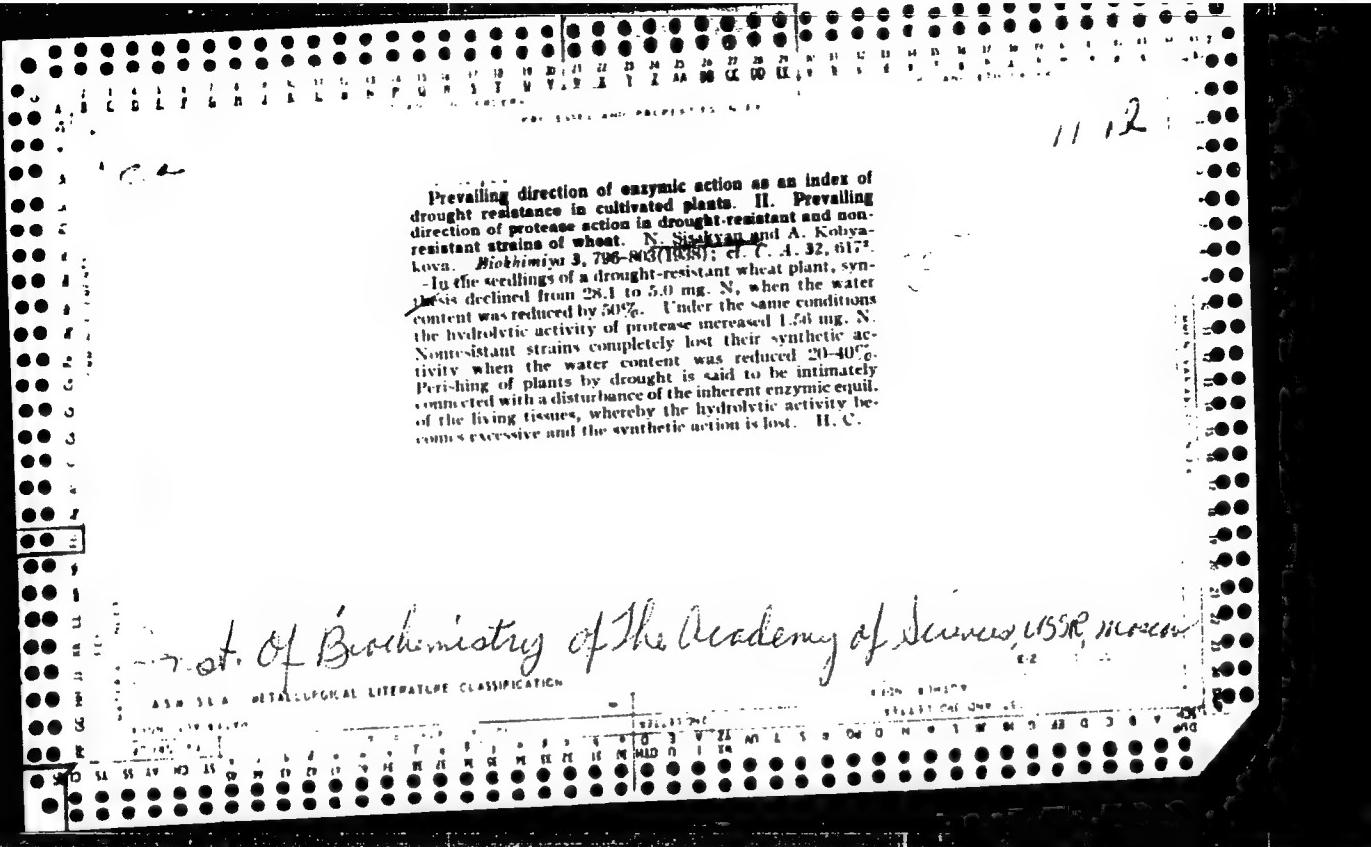
EZ



Disturbances of carbohydrate metabolism of the chicory plant (*Cichorium intybus*) in phosphate starvation.
Sukyan. Biokhimiya 3, 91-101 (1938). During P star-
vation, the inulin content of the chicory root decreases, and
other sugars increase, so that the total carbohydrate con-
tent remains about the same.
H. Cohen

INSTITUTE OF Biochemistry, Academy of Sciences USSR,
moscow

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

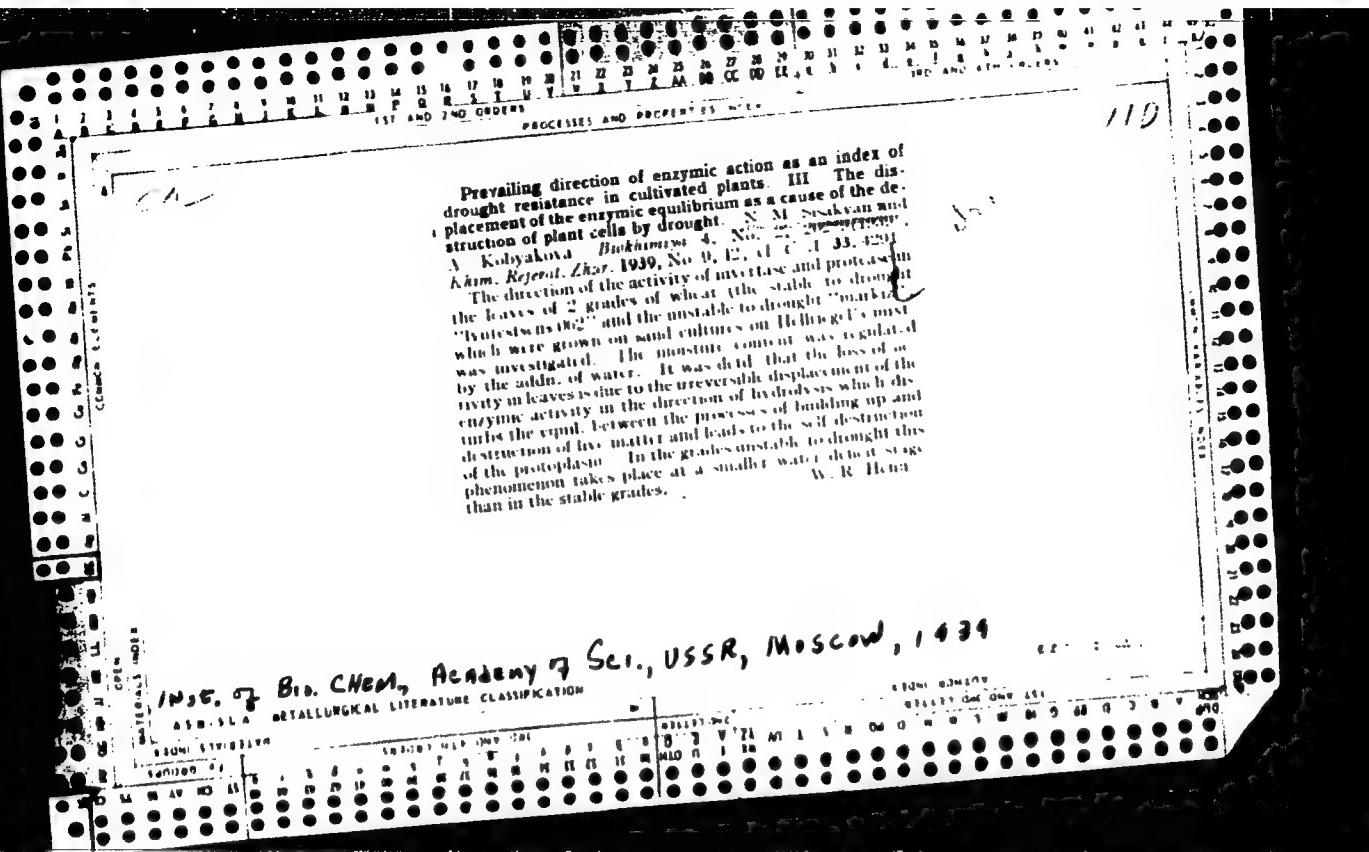


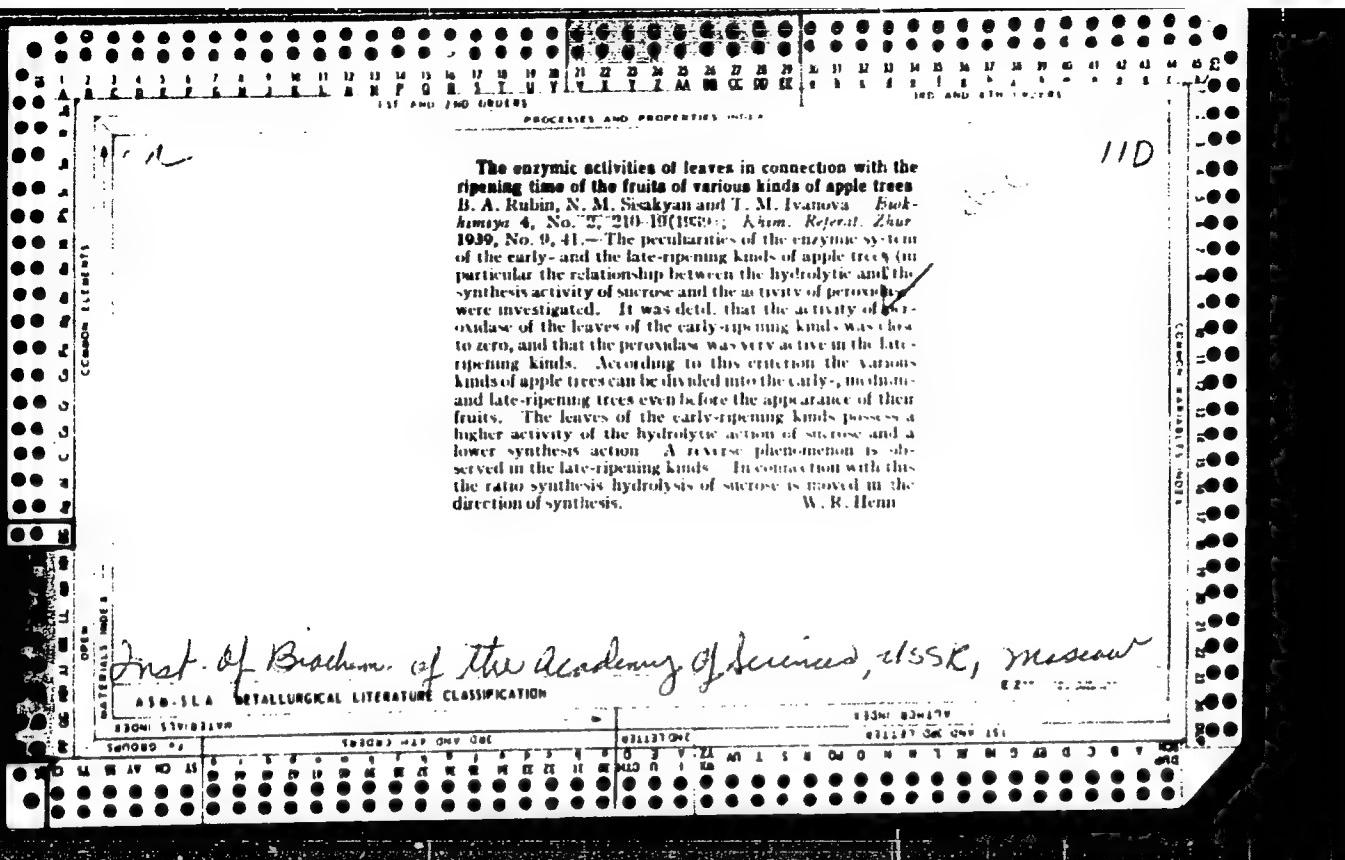
Effect of low temperatures on the reversibility of enzymic reactions as related to the hardiness of the plant. M. Susakyan and B. A. Rubin. *Biokhimia* 4, 140-146. In hardy varieties of apple trees, the shift of enzymic equil. in the direction of hydrolysis and the loss of synthetic capacity occur at a higher temp. level than in the hardy sort. At low temps., the plant perishes because of this irreversible hydrolysis shift. H. Priestly

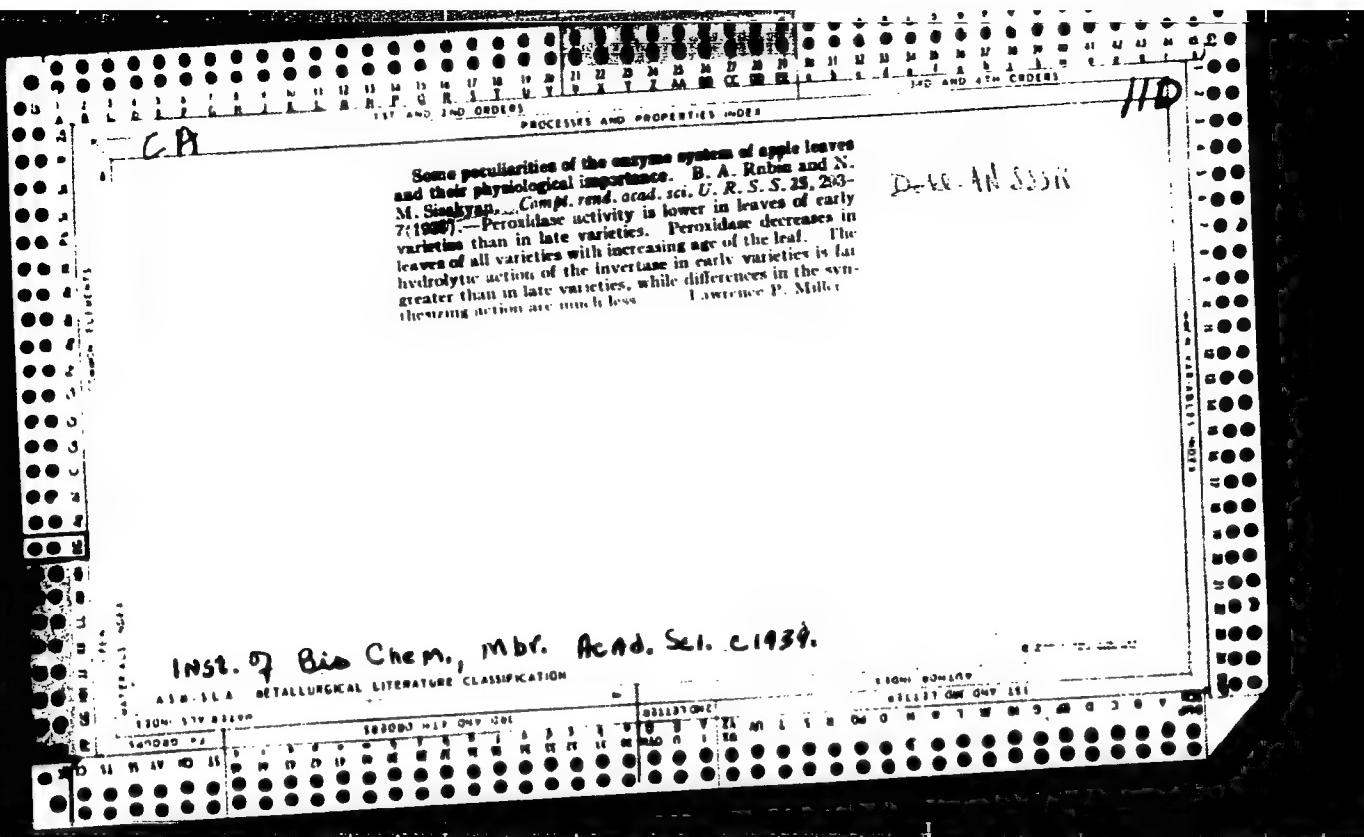
INSTITUTE OF BIO-CHEMISTRY, ACADEMY OF SCIENCES OF THE USSR, MOSCOW, - 1939

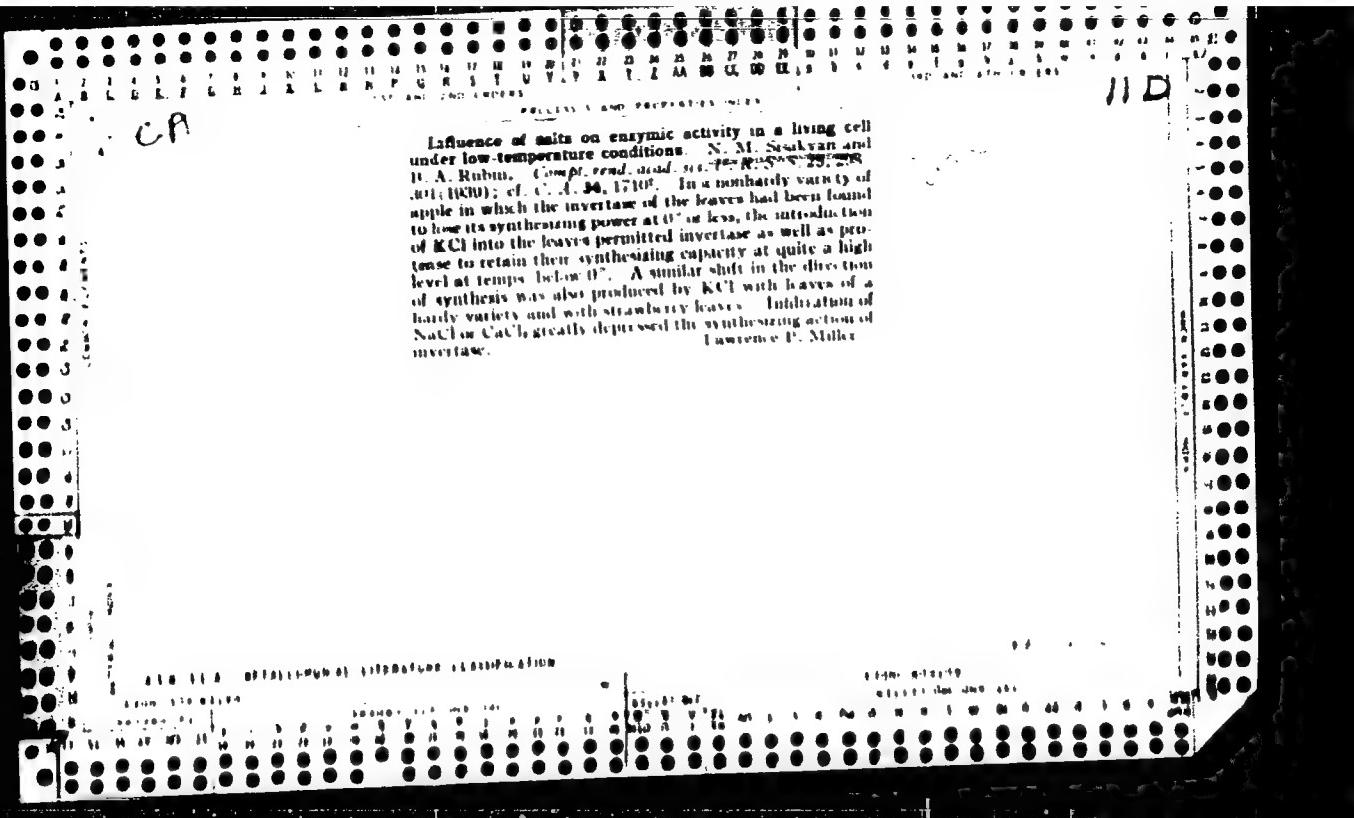
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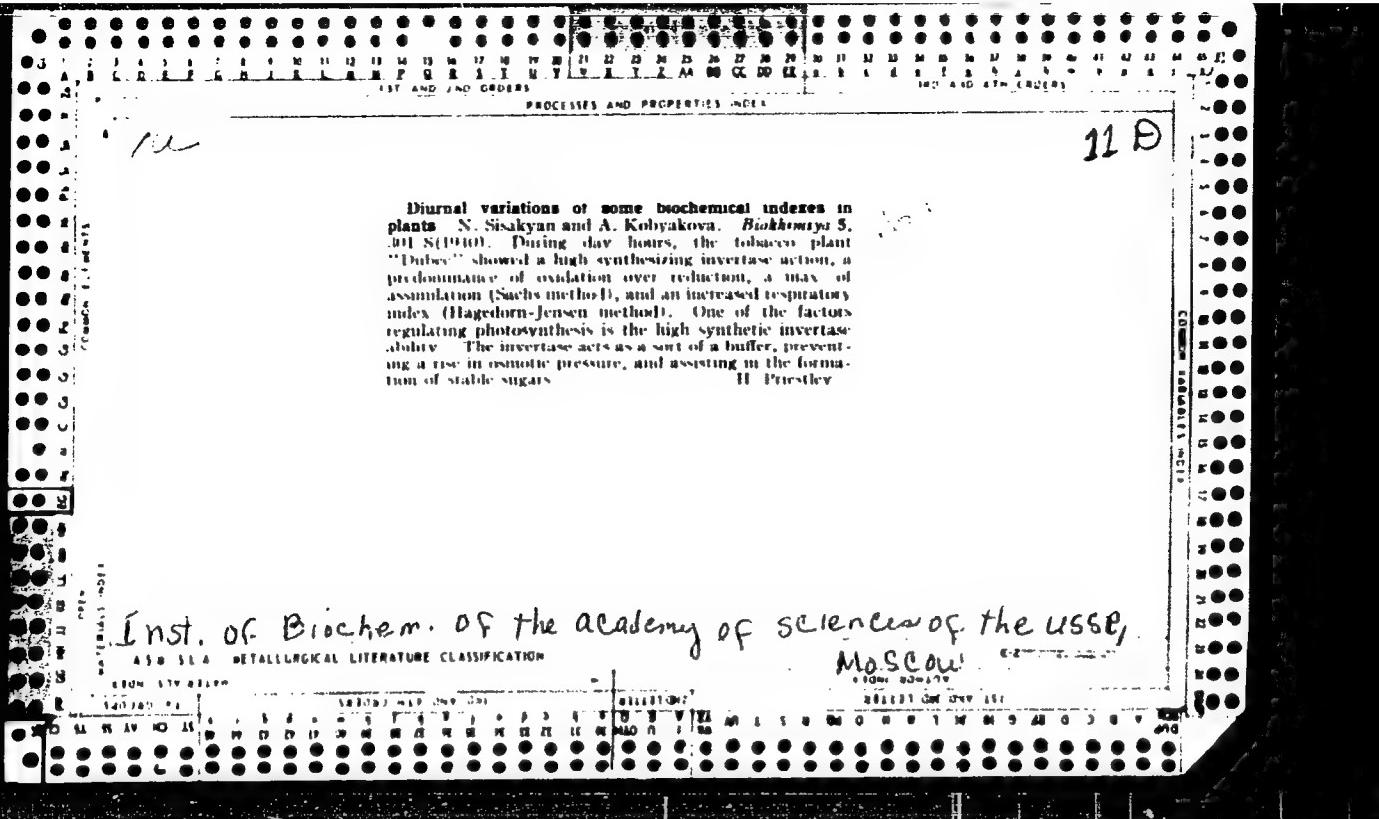


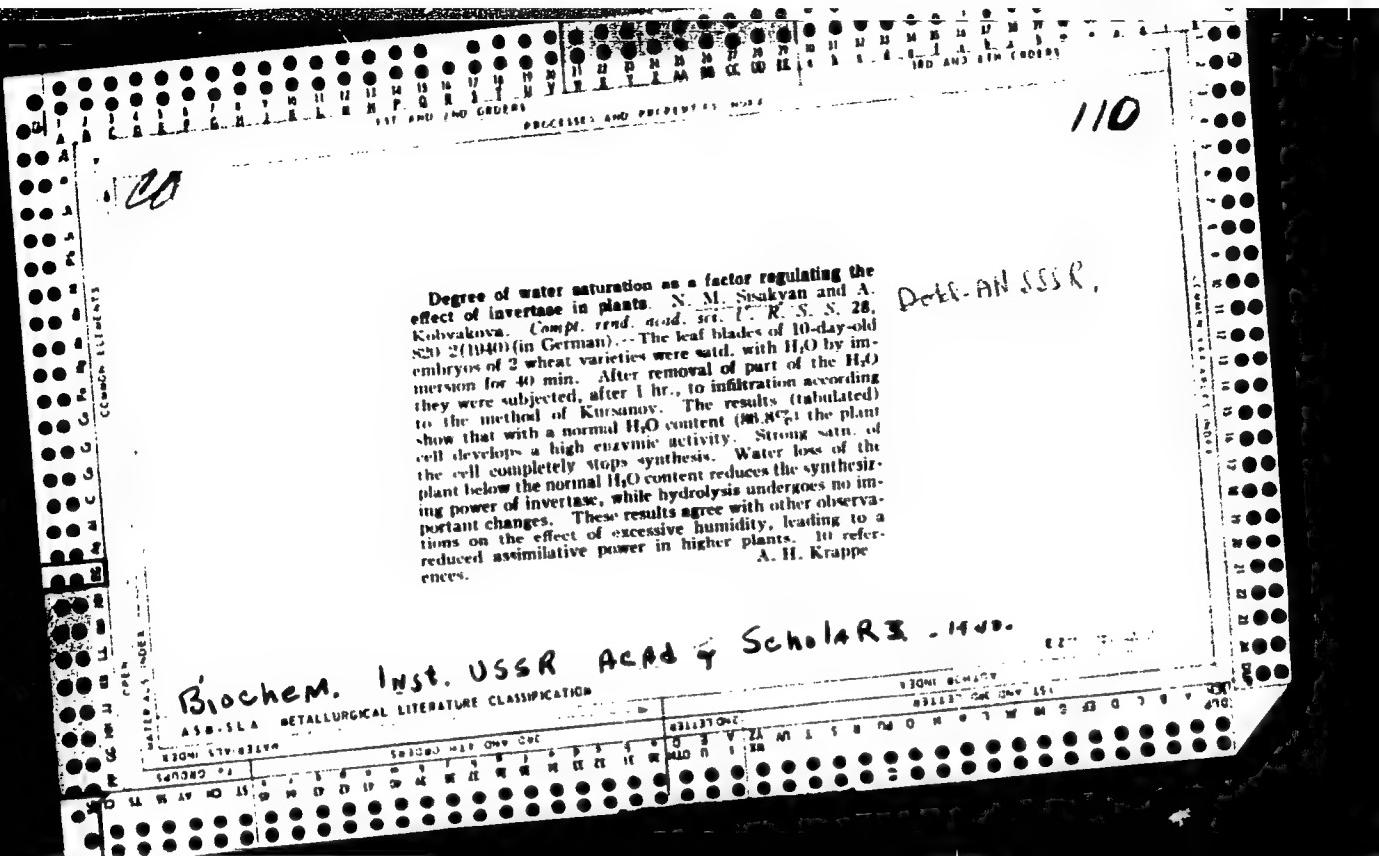
*CH**113*

The prevailing direction of enzyme action as an index of drought resistance in cultivated plants. IV. The effect of withering upon the trend of the process of esterification and hydrolysis of phosphoric esters in plants. N. M. Sisakyan and A. Kolvakova. Biokhimiya 5, 225-33 (1940); cf. C. A. 34, 8878^a.—By the method of vacuum infiltration, the phosphatase activity in the leaf blades of young sprouts of different sorts of wheat was investigated. The synthesizing activity of the phosphatases is destroyed and the hydrolyzing activity increased when 30-40% of the water is lost from the leaves. The phosphatase activity reappears when the water deficit is still further increased (40-50%); the hydrolyzing activity likewise increases. No correlation exists between the synthesizing activities of invertase and of the phosphatases. In the course of withering, the amt. of monophosphates decreases, while the diphosphate content simultaneously increases.

H. Priestley

INST. OF Biochem. of the Academy of Sciences, USSR, Moscow
ASB-ILIA METALLURGICAL LITERATURE CLASSIFICATION





The character of enzyme action in connection with the drought resistance of plants. N. M. Sivakyan, *Izv. Akad. Nauk Dnestr. Uchenykh i Inst. Biologich. Akad. Nauk S. S. R.* 1940, No. 4, 20-28; *Khim. Referat. Zhurn.* 6, No. 9, 67-81 (1941).—Water deficiency disturbs the enzymic equilibrium in plants and decreases the synthetic activity of enzymes (invertase and protein). This effect is especially great in varieties of low drought resistance. As the result of this the synthesizing capacity of the cell may be lost and the decomposing processes accelerated. It is considered that such disturbances in the enzymic equil. are the principal reasons for the death of plants from drought.

W. R. Henn.

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卷之三

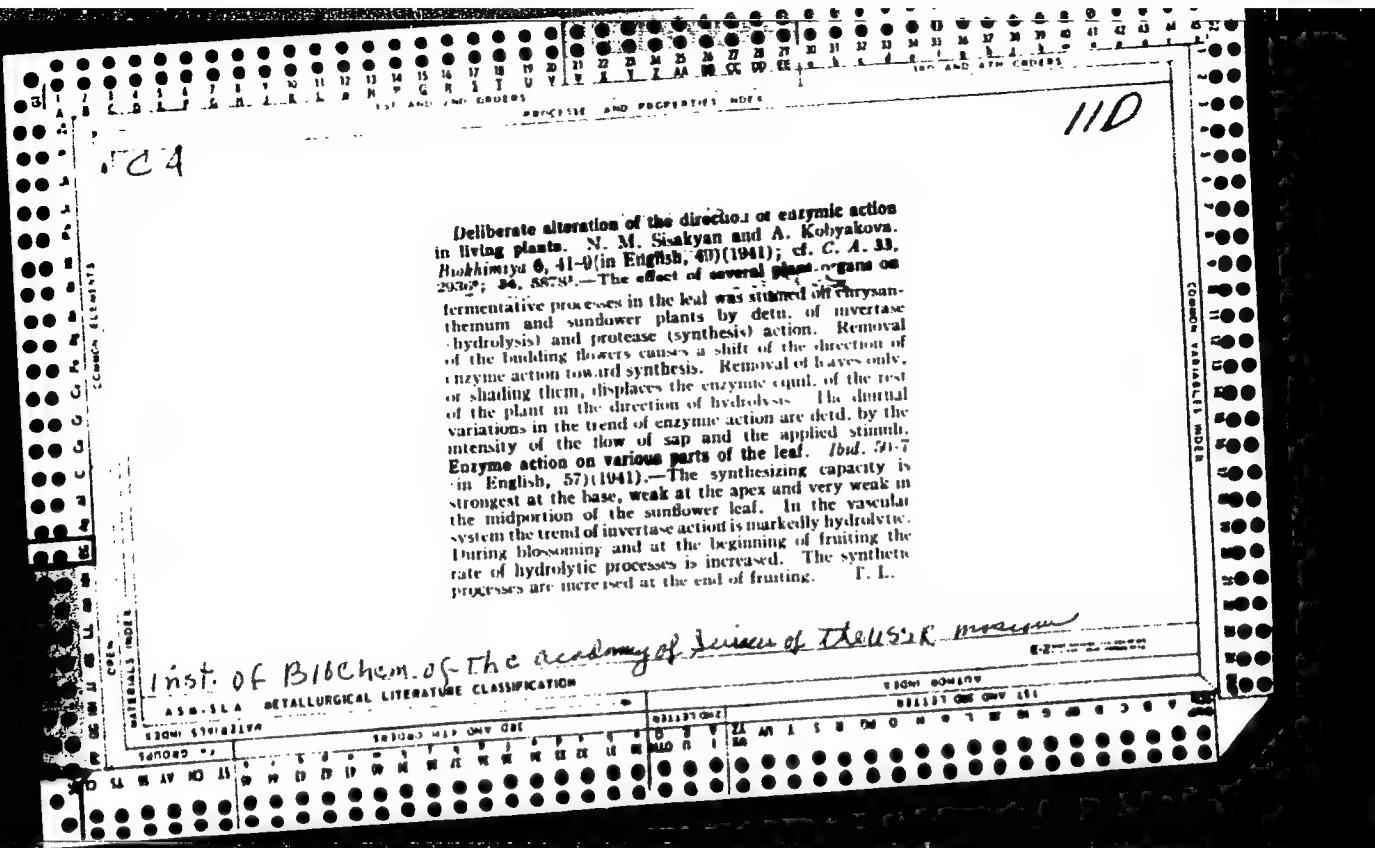
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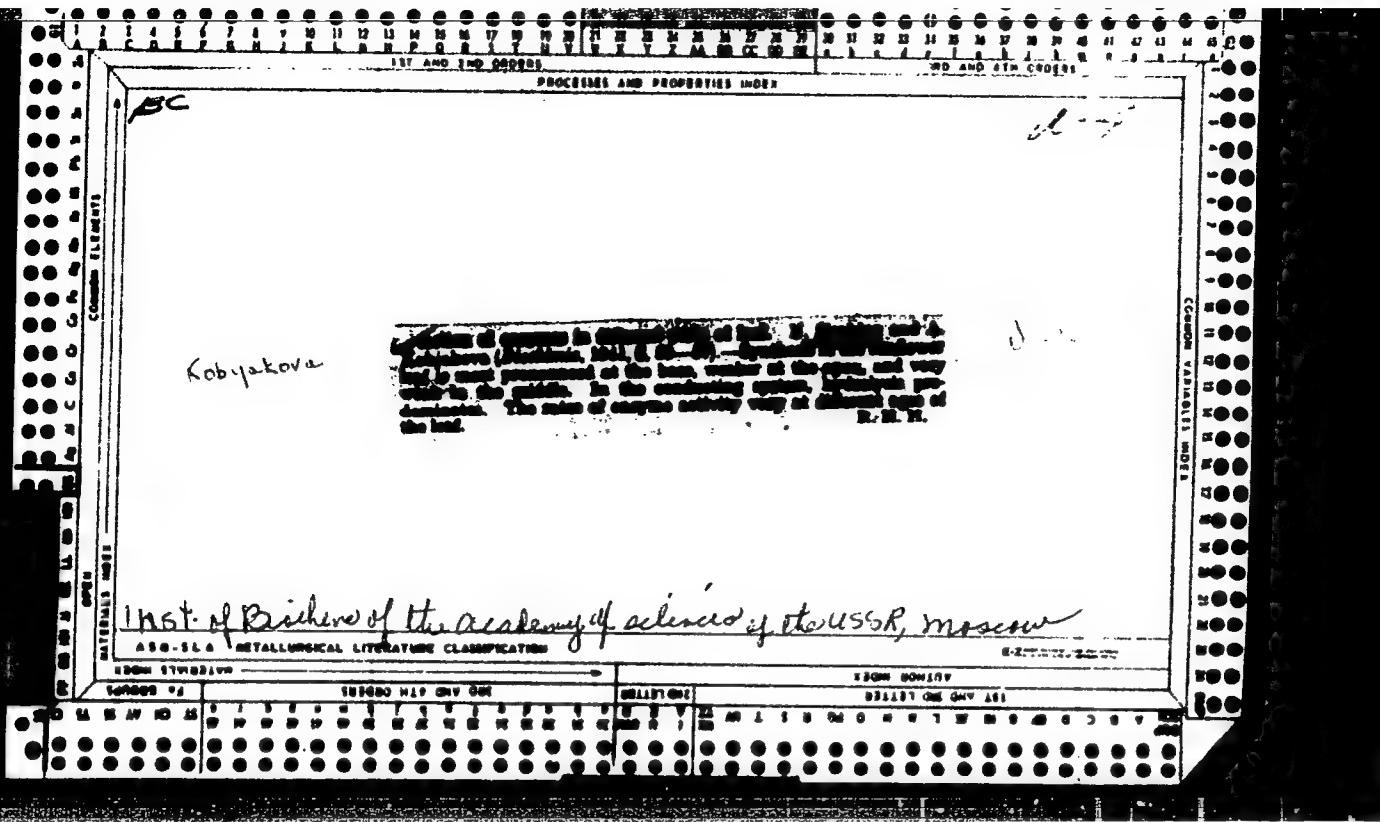
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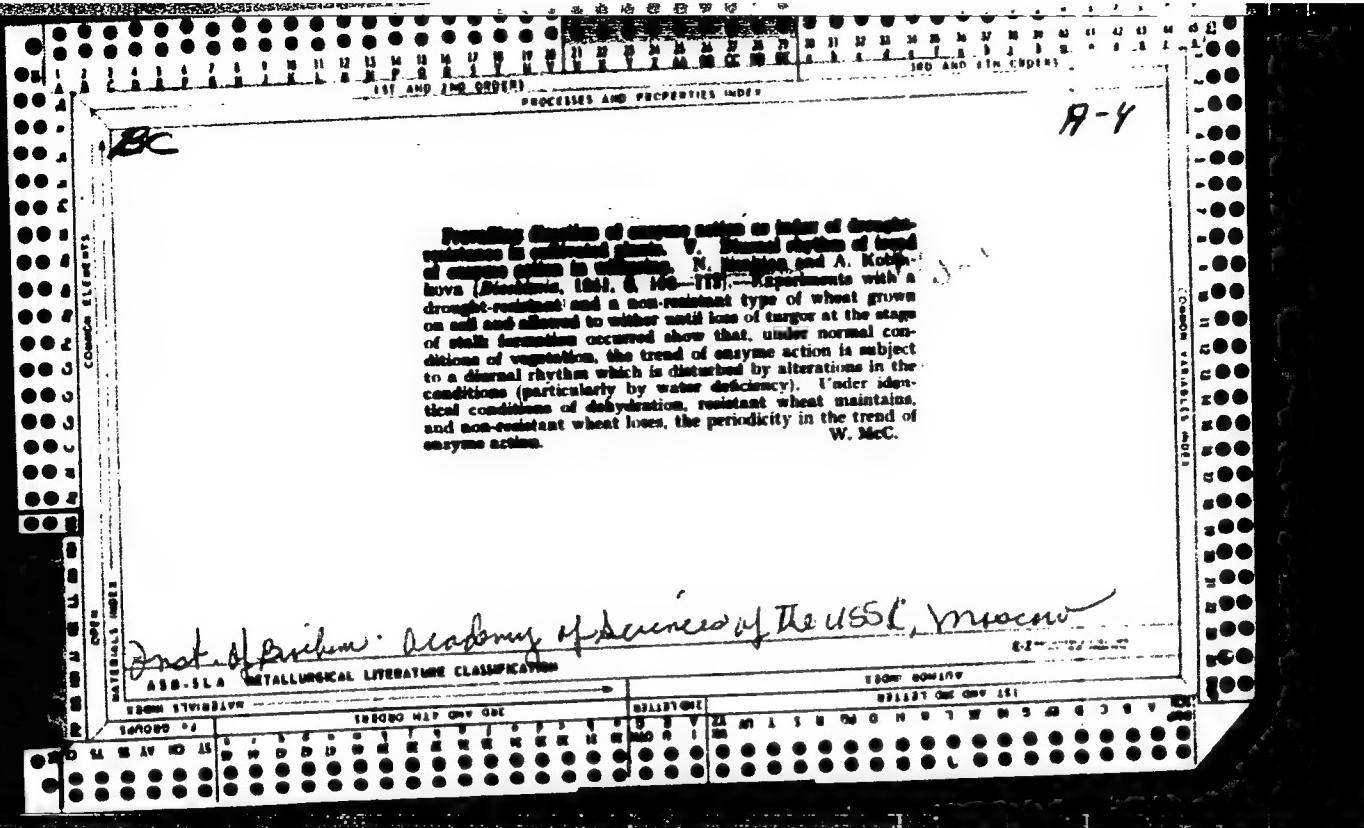
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PRINCIPAL AND PREDICTED NOTES

Drying of vegetables and potatoes with preservation of
vitamin C. N. M. Sogolyan. Nauk. i Tekhn. Rada (1940);
cf. C. A. 35, 3730. Potatoes and other vegetables
on ordinary drying lose their vitamins. Preliminary treat-
ment with SO₂ prevents vitamin loss and improves the
appearance and taste of the vegetables. D. P.

12

Inst. of Biochem. Acad. of Sci. USSR, Moscow - 1943

ASIA-SEA AGROCHEMICAL LITERATURE CLASSIFICATION

ca

PROCESSES AND PROPERTIES INDEX

100 AND 110 INDEXES

110

Seasonal variations of the direction of invertase action and their bearing on the accumulation of sugar in the sugar beet. N. M. Shaplygin and N. I. Nuzhdin. *Botanika*, 104, 12 (1940); 7, 77, C. A. 31, 78319. --By the method of vacuum filtration it has been demonstrated that the synthetic action of invertase surpasses the hydrolytic action during the period of sucrose-form-producing processes. When the latter slow down, and sucrose accumulates in the root, the hydrolytic effect of the leaf invertase begins to predominate over the synthetic. This occurs at the end of June and continues until the close of the vegetating period. A higher sucrose content in the beet root signifies that a higher hydrolytic invertase level existed in the leaves during the sugar accumulation. H. Priestley

Inst. of Biochem., Inst. of Genetics, Acad. of Sci. USSR, Moscow.

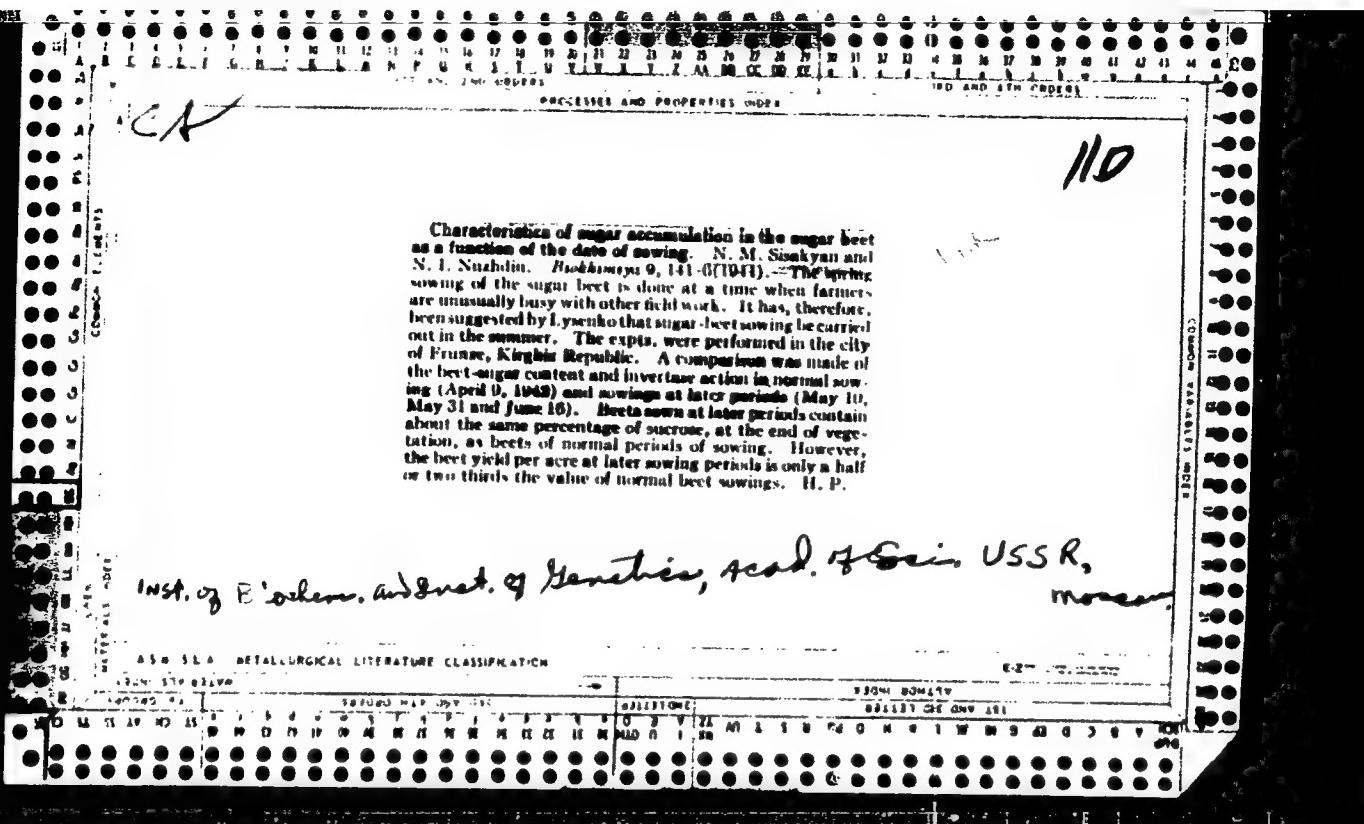
ASIAN-AFRICAN MEDICAL LITERATURE CLASSIFICATION

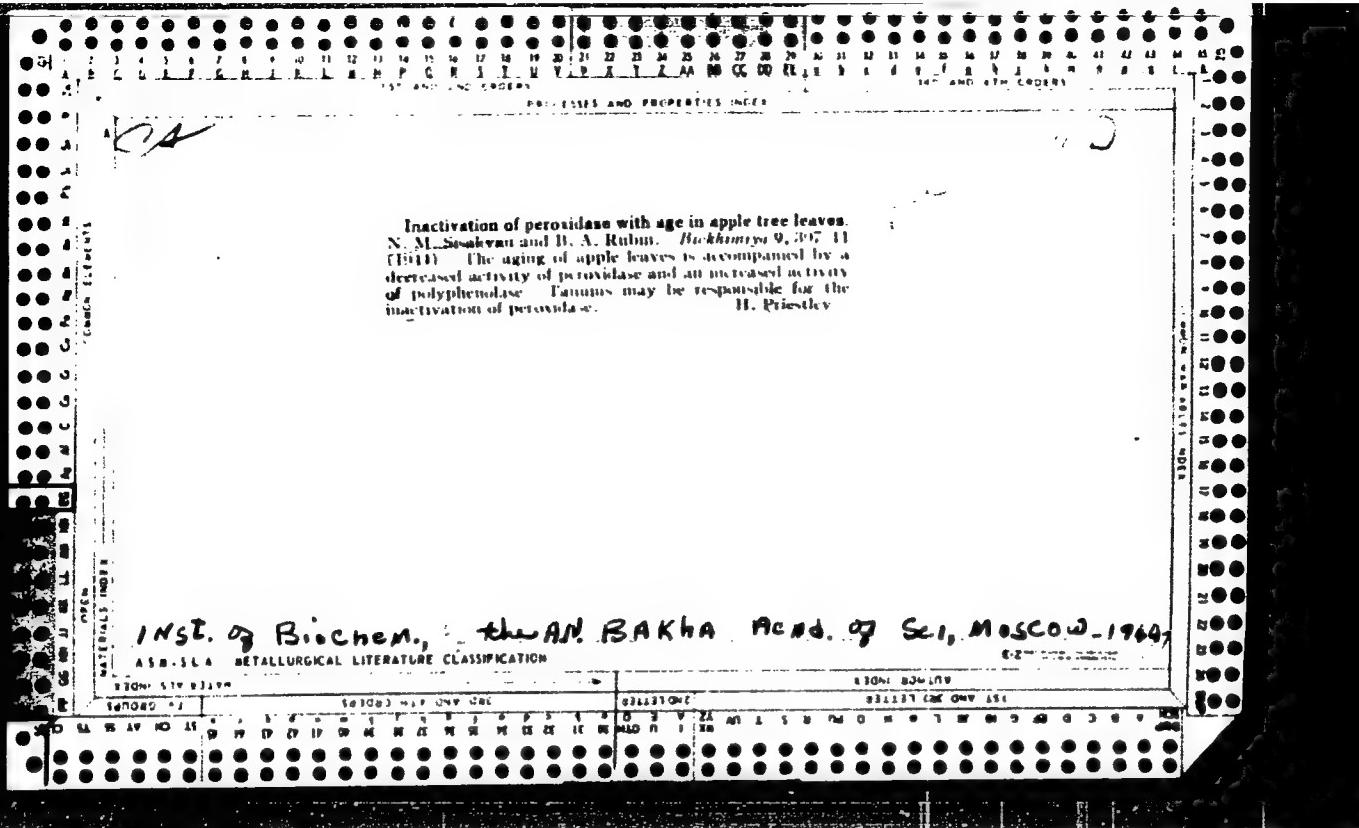
*CD**II D*

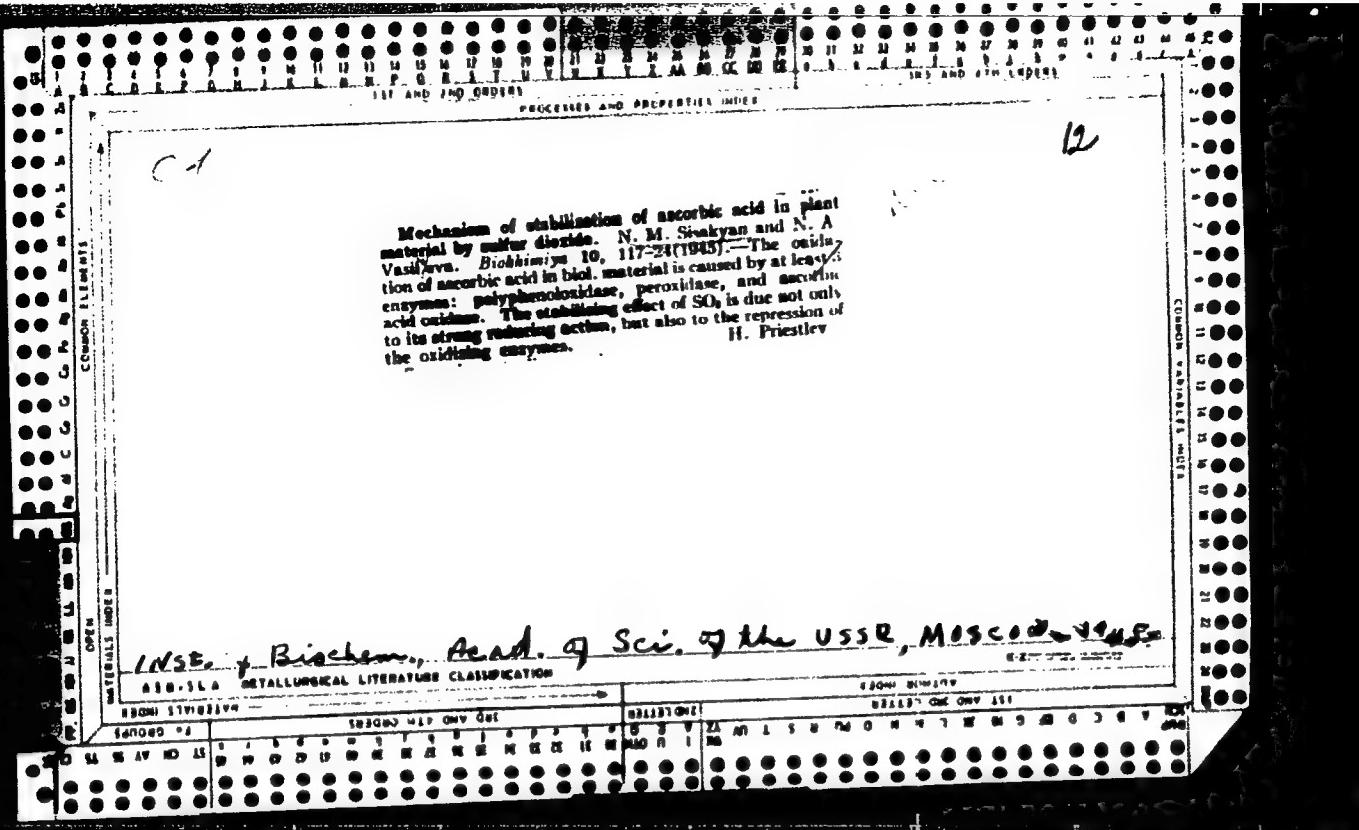
Role of the osmotic factor in determining the direction of enzymatic action in the living plant cell. N. M. Sisakyan and A. M. Kobylakova. *Biofizika*, 9, 120 (1964).
The osmotic pressure of the cell was varied by introducing into the leaves, through vacuum infiltration, a mixt. of invert sugar with mannitol or sorbitol, or a mixt. of sucrose with the polyatomic alcs., depending on the purpose of the expt. The synthetic processes of invertase in the living plant cell are enhanced by increasing the concn. of osmotically active substances. Depending on the nature of the plant, the activity of invertase increases on raising the concn. of the substances introduced (invert sugar plus sorbitol) from 0.1 to 0.35-0.40 M. The hydrolytic processes are increased in cases where the osmotic pressure is raised to such a level as to cause dehydration. Higher concns., which cause plasmolysis (C. J., 10, 2016), result in a reduction in both the synthetic and hydrolytic effects.
H. Priestley

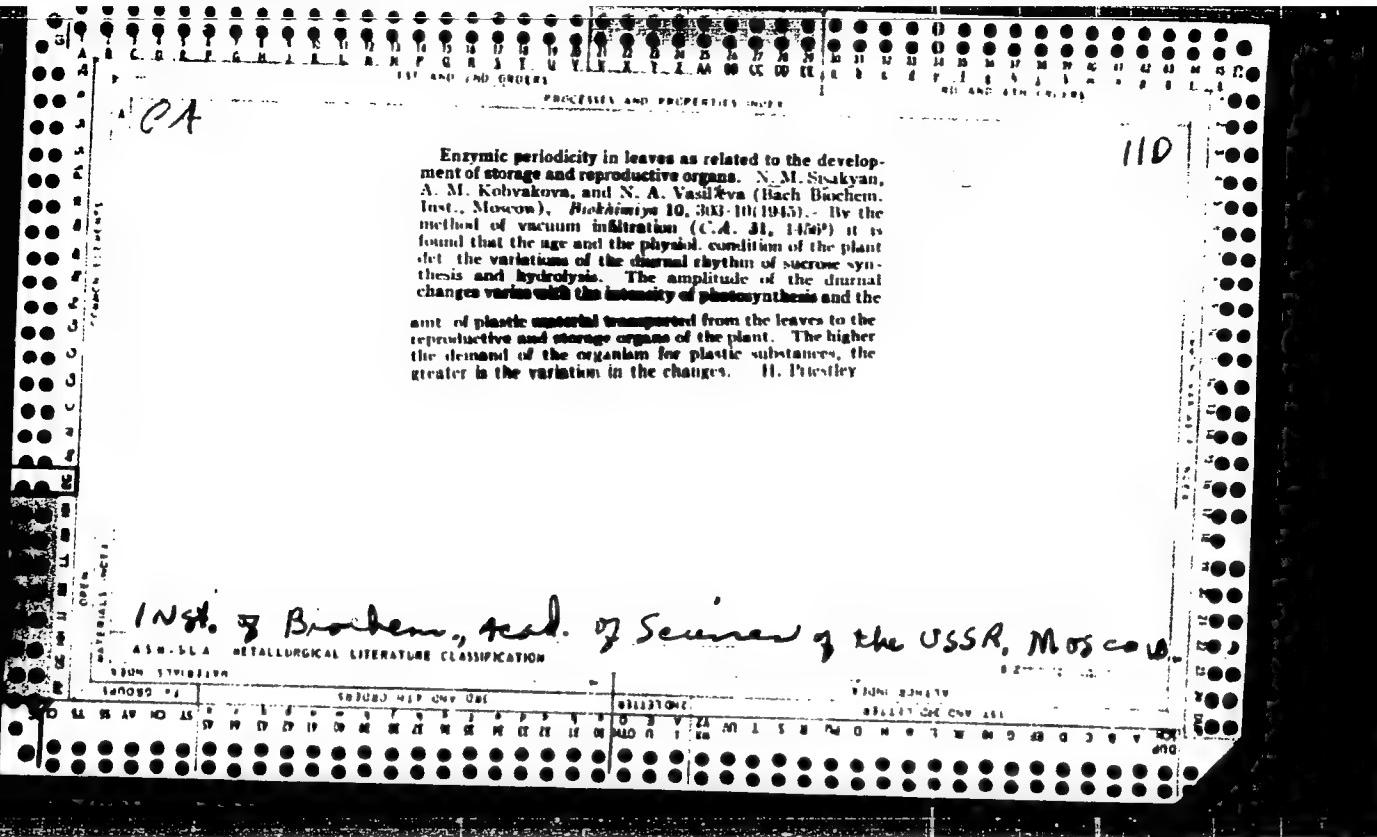
Inst. of Biochem., Acad. of Sci., USSR, Moscow - 1944-

ASHISLA METALLURGICAL LITERATURE CLASSIFICATION









C7

11-D

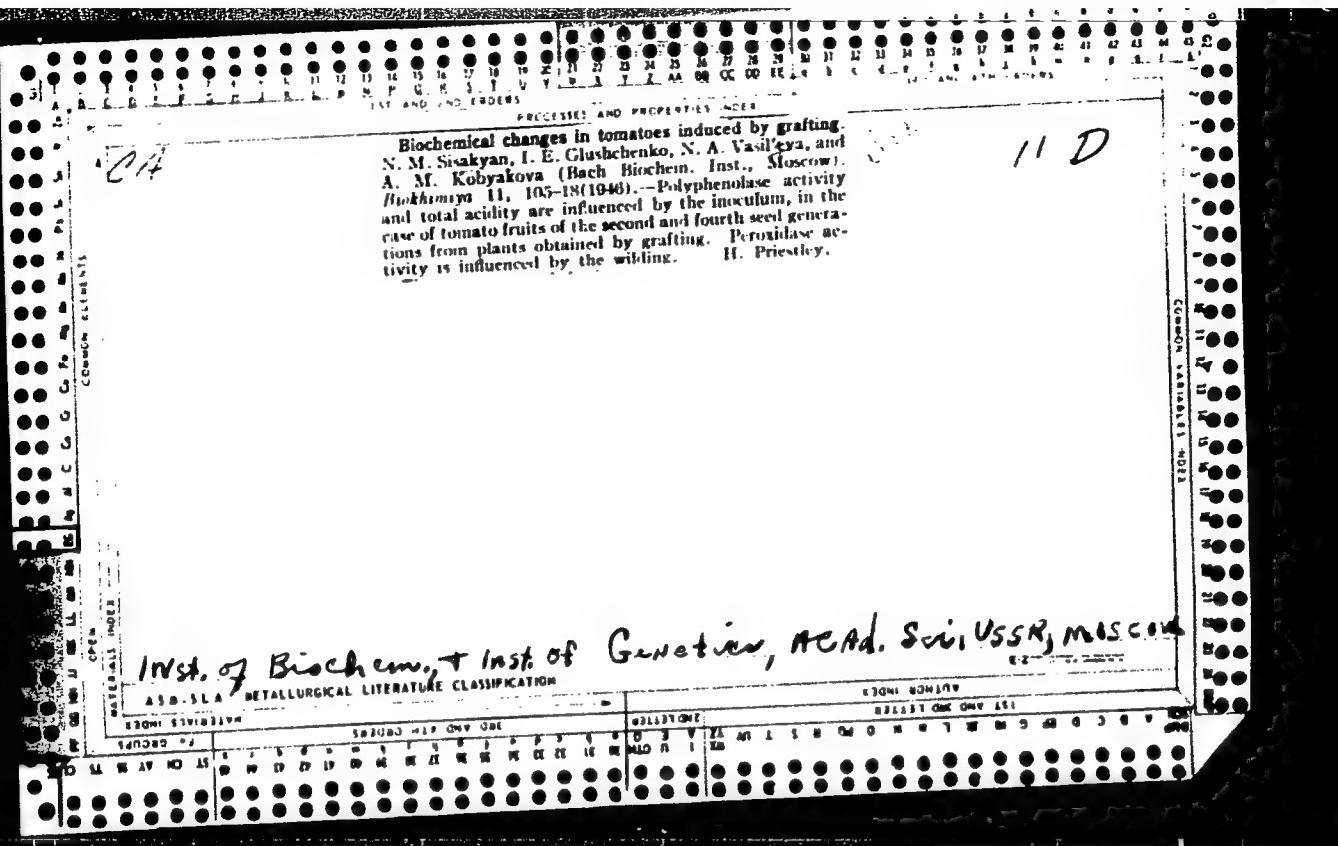
Causes of rhythmic changes in enzymic processes of plants. N. M. Sisalyan, N. A. Vasileva, and A. M. Kobayakova (*Bioch.-Biochem. Inst., Moscow*). *Biokhimiya* **10**, 445-54 (1945) (English summary).—The synthesis and hydrolysis of sucrose were studied in the leaves of the sugar beet grown in absolute darkness and under the natural conditions of diurnal changes of illumination. A rhythm is developed even in the dark, the causes of which are not yet clear. The periodicity of enzymic changes expresses the changes of the physiol. state of the plant.
H. Priestley

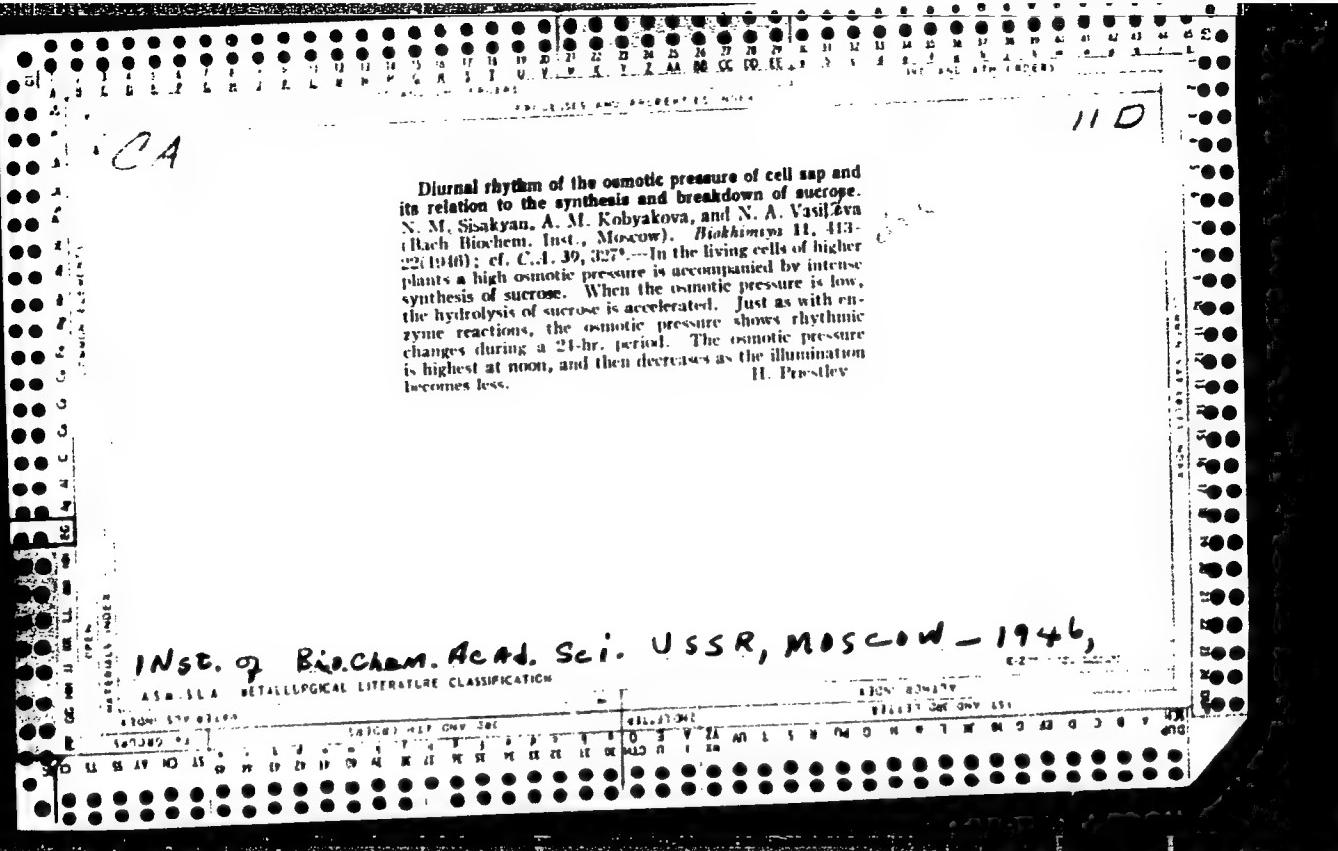
H. STICKLEY

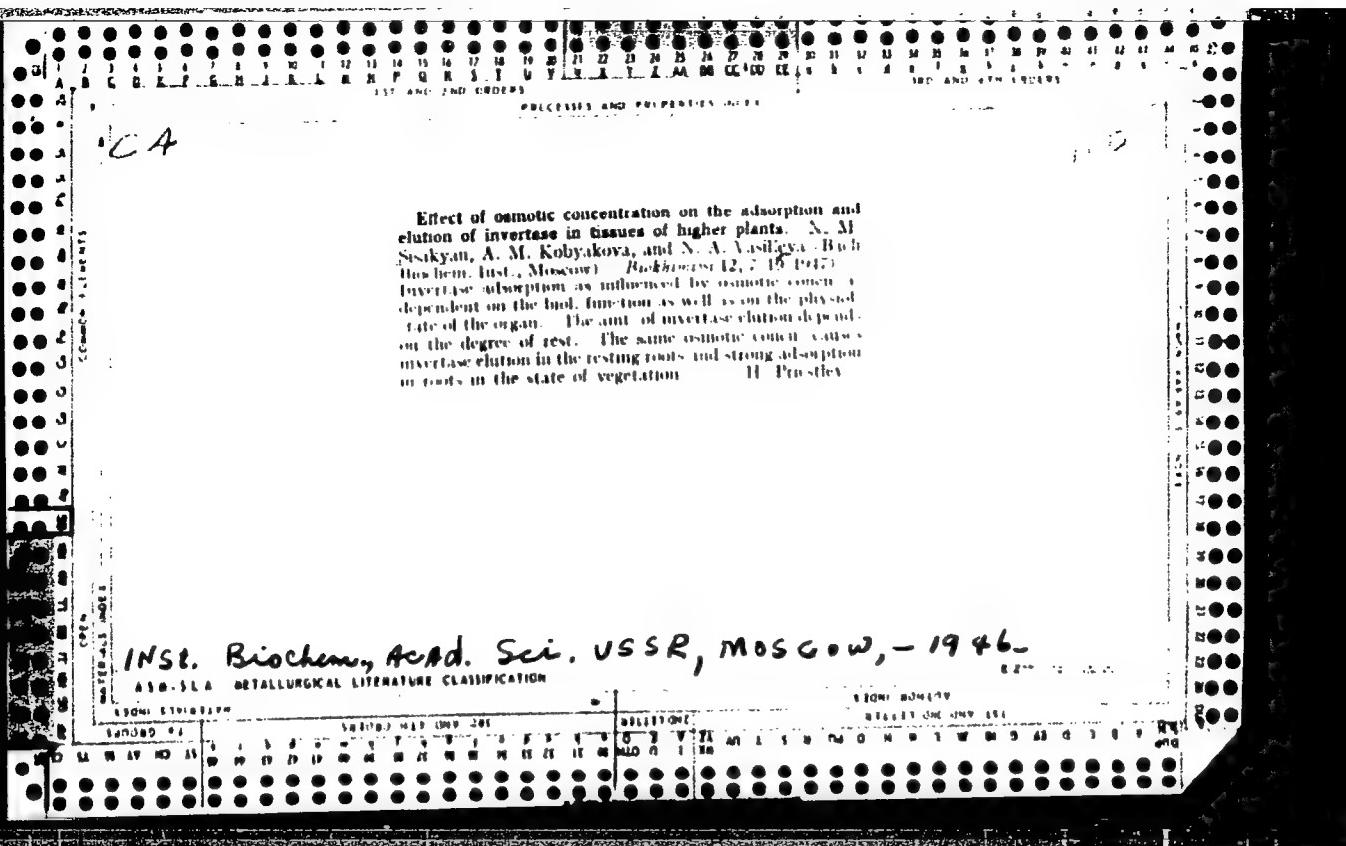
Inst. Biochem. Acad. of Sci. of the USSR, Moscow,
AS-SEA METALLURGICAL LITERATURE CLASSIFICATION
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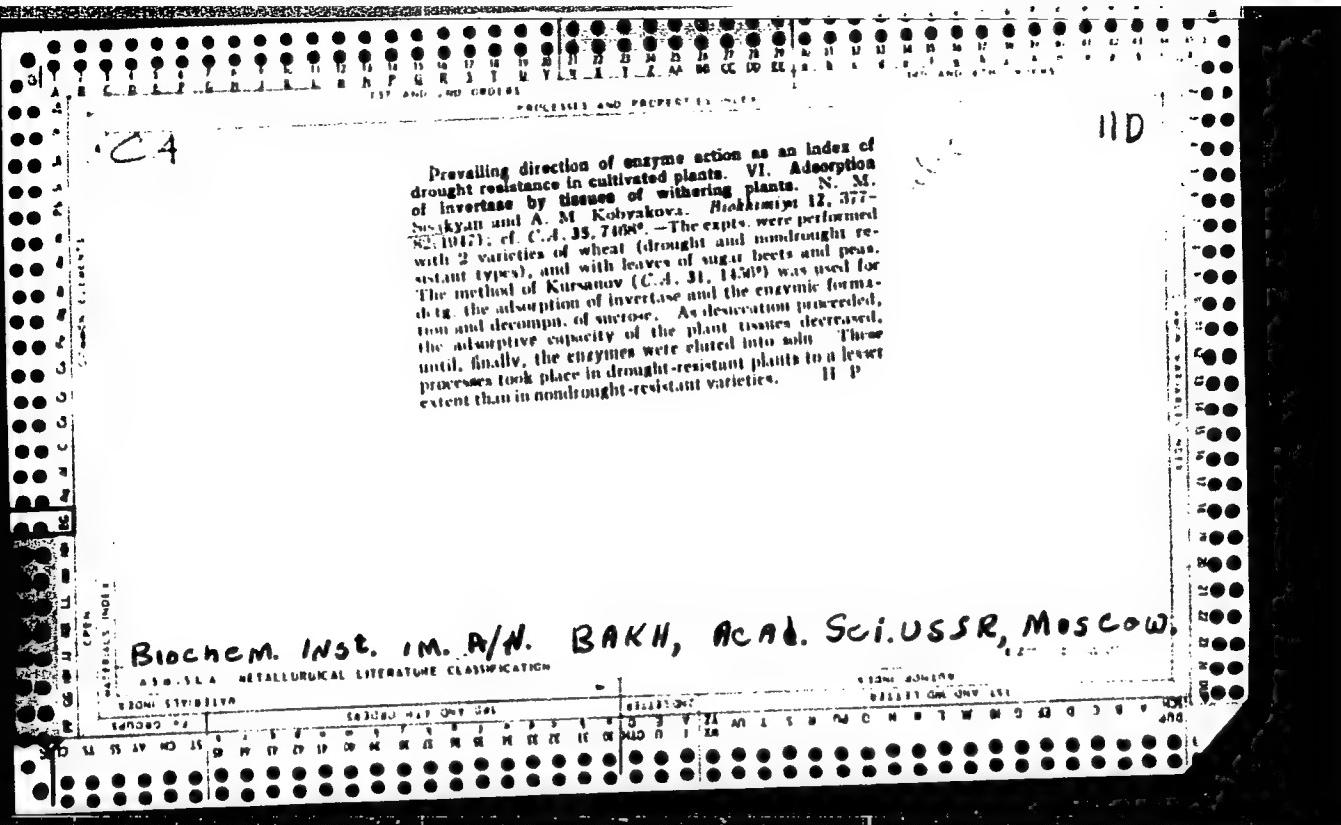


CA

II D

The role of amino acids in the synthesis of sucrose in plants. N. M. Sisakyan and N. A. Vasil'eva (Bach Biochem. Inst., Acad. Sci., Moscow). *Biofizika* 12, 241-9 (1947).--The leaves of wheat, pea, and sugar beet were tested for the degree of sucrose synthesis by vacuum infiltration of the amino acid together with solns. of invert sugar and sucrose. The following substances activated sucrose synthesis when present in small amounts, but were inhibitors in large concns.: glycine, alanine, glutamic acid, asparagine, and tryptophan. Aspartic acid and phenylalanine had an inhibiting effect. The amino acids act by stimulating the protoplasm and by altering its adsorptive properties; this shifts the enzymic equil. H. Priestley

BACH. INST. Biochem., Acad. Sci. USSR, MOSCOW, 1947.



SISAKYAN, N . M.

USSR/Medicine - Chemistry
Medicine - Plants

Sep/Oct 1947

"Plant Biochemistry in the Soviet Union for Thirty Years," A. I. Oparin,
N. M. Sisakyan, Moscow, 10 pp

"Uspekhi Sovremennoy Biologii" Vol XXIV, No 2 (5)

Historical development of the science of plant biochemistry in Soviet Union for
the first 30 years of Soviet rule. Discusses some of the more important institutes
connected with this development, and mentions names of more important contributing
scientists.

PA40T37

Factors that determine the intensity of adsorption of enzymes by plant tissues. N. M. Sisakyan and A. M. Kohyakova (A. N. Bakh Biochem. Inst., Moscow). *Doklady Akad. Nauk S.S.R.* 57, 903-6 (1947).--Expts. with sugar beet showed that invertase adsorption does not show a clear-cut correlation with osmotic pressure in the leaves, but in the root system there is a rapid rise of adsorption with increase of osmotic pressure. As osmotic pressure rises adsorption or elution of the enzyme in turgid roots increases until at 32 atm. osmotic pressure a max. is reached, after which a decline sets in. In leaves the crit. pressure is about 18 atm.
G. M. Kosolapoff

SISAKYAN, N.M.; YEGOROV, I.A.; AFRIKYAN, B.L.

Age variation of tannins in grape varieties [in Russian with English summary]. Biokhim.vin. no.1:158-169 '47. (MLRA 7:10)

1. Institut vinodeliya i vinogradarstva AN Armyanskoy SSR. 2. Institut biokhimii imeni A.N.Bakha.
(Grapes--Varieties) (Tannins)

SISAKYAN, N. M.

PA 58T10

UNER/Chemistry - Sucrose
Chemistry - Sugar Beets

Aug 1947

"Daily Periodicity of the Absorption Ability in Plants and Its Relation to the Fermentative Synthesis of Sucroses," N. M. Sisakyan, A. M. Kobyakova, N. A. Vasil'yeva, Inst Biochem imeni A. N. Bakh, Acad Sci USSR, 1½ pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVII, No 5

Describes experiments which lead to conclusion that roots of sugar beet possess capacity for intensive formation of sucrose after free invertase in them has been absorbed. Submitted by Academician A. I. Oparin, 20 Jan 1947.

58T10

SISAKYAN, N. M. and KOBYAKOVA, A. M.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550910017-2"

"The Transfer of Ferments in Plants," Dok. AN 57, No. 6, 1947.

CA

MO

Influence of mineral elements on the adsorption of invertase by the tissues of higher plants. N. M. Sisikyan (Bach Biochem. Inst., Moscow). *Doklady Akad. Nauk S.S.R.* 58, 1907 (1947); *Chem. Zentr.* 1948, II, 209; cf. *C.A.* 41, 4830g; 42, 6418f.—Grains of young winter wheat were vacuum-infiltrated with salt solns., dried to their original wt., and then kept for 3 hrs. in a moist chamber at room temp. The grains were sliced and the ability to adsorb invertase was detd. according to Kursanov (cf. *C.A.* 41, 5014). The data reported indicate that NaCl, NaNO₃ and Na₂SO₄ had no appreciable effect on the ability to adsorb invertase. The corresponding K salts increased adsorption slightly. (NH₄)₂SO₄ and NH₄Cl produced a considerable increase in adsorption, while NaH₂PO₄ and KH₂PO₄ produced a still greater increase. M. G. Moore

1951

SISAKYAN N. M.

Biochemical characteristics of different varieties of grapes and their relation to the type of wine. N. M. Sisakyan, I. A. Ugorov, and B. L. Afrikyan. *Biochim. Vinogradov. Akad. Nauk S.S.R., Sbornik 2, 7-55 (1948).*—The grapes studied were the Armenian varieties Voskeat, Chilar, Mskhali, and Garandnak. Data are given for the amts. of titratable acidity (I), volatile fatty acids (II), pH, acetal, Ach, tannins (total, water sol., 1% NaOH sol., polyphenols, and phloroglucinol), total N, nonprotein N, vitamin C, vitamin B₁, nicotinic acid, Et₂O- and petg. ether-extd. org. esters (total III), neutral (IV), and acidic (V), monosaccharides, sucrose, starch, evolution of CO₂, alc., ash, and enzymic activity of peroxidase, ascorbic acid oxidase, polyphenol oxidase, and invertase in leaves, grapestalks, grapes, seeds, and (or) in must and wine. The rate of synthesis and hydrolysis of sucrose was detd. in leaves only. The detns. were carried out shortly before flowering, during flowering, shortly before ripening of the grapes, at the beginning of ripening, at full physiol. maturity, and at the time of leaf shedding. Marked physiol. and biochem. differences were noticed, especially between the sherry (Voskeat and Chilar) and nonsherry sorts. Wines obtained from the sherry sorts were superior in color, development of flavoring substances, and biochem. compn., in particular in the case of Voskeat wine with a biochem. compn. after the first filtering as follows: alc. 11.90 (ebullioscopic) and 12.23% (sp. gr.) (sugar concn. of the must was 24.9%), I 3.00 mg. % (as tartaric acid), II 0.92 mg. % (as AcOH), pH 3.00, acetal 30.8 mg./l., total tannins 249.0, Ach 54.5, total N 273.5, and vitamin C 1.3 mg./l., vitamin B₁ 44.0, and nicotinic acid 800.0 γ, ash 2.24 g./l., III 4.00, IV 1.50, and V 2.50 meq./l., resp. Except for I, vitamin C, ash, and pH these are the highest abs. values. The amts. of acetal, tannins, and Ach are approx. twice as high as in the nonsherry wines. 51 references.

E. Wiericki

Sisakyan N. M.

1. Grape sugars. N. M. Sisakyan and S. A. Marutyan.
Biohim. Vinodeliya Akad. Nauk S.S.R., Sbornik 2, 51-
68(1948).—Sucrose, glucose, and fructose were detd. in 36
different varieties of grapes, harvested at the beginning of
ripening, at physiol. maturity, and at technological matur-
ity. All grapes contained 0.2-1.5% sucrose. Total amt. of
glucose and fructose increased with maturity, reaching the
highest values 17.2-23.4%, at technological maturity.
The glucose-fructose ratio showed a variation from 0.30
to 1.14. *[Signature]*
E. W. Erbicki

SISAKYAN N.M.

✓ Biochemical nature of sherry wines. N. M. Sisakyan,
E. M. Popova, I. A. Egoryn, and M. G. Puchkova. Bio-
khim. Vinodeliya, Akad. Nauk S.S.R., Sbornik 2, 69-85
(1948).—Eleven sherries of different ages (1-16 years old)
were investigated. It was found that the sherry-type fer-
mentation consists of 2 periods, formation of AcH and trans-
formation of AcH into acetal, and that the flavor of sherry
wines depends on the ratio of AcH/acetal rather than on
their abs. amts. The best old wines had a ratio of 1.21-1.26.
Org. esters (up to 26.8 meq./l.) were formed during the
fermentation. Aging of wines was accompanied by a de-
crease of esters. Active esterase was found in all wine
samples; its hydrolytic and (or) synthetic activity depended
on the origin and age of wine. The higher amt. of tannins in
old wines was due to their diffusion from the oak containers
into the wine and (or) to the reduction of the oxidized forms
of tannins during the aging. Spanish sherry contained the
highest amt. of phloroglucinol (46.0 mg./l.) as compared
with the native sorts (2.0-8.6 mg./l.). The lowest amt. of
amino N (24.00 mg./l.) was found in the most typical
sherries. The amt. of vitamins (thiamin, riboflavin, and
niacin) decreased during the fermentation. The differences
among the samples with respect to the titratable acidity and
pH were small. 22 references. E. Wierzbicki

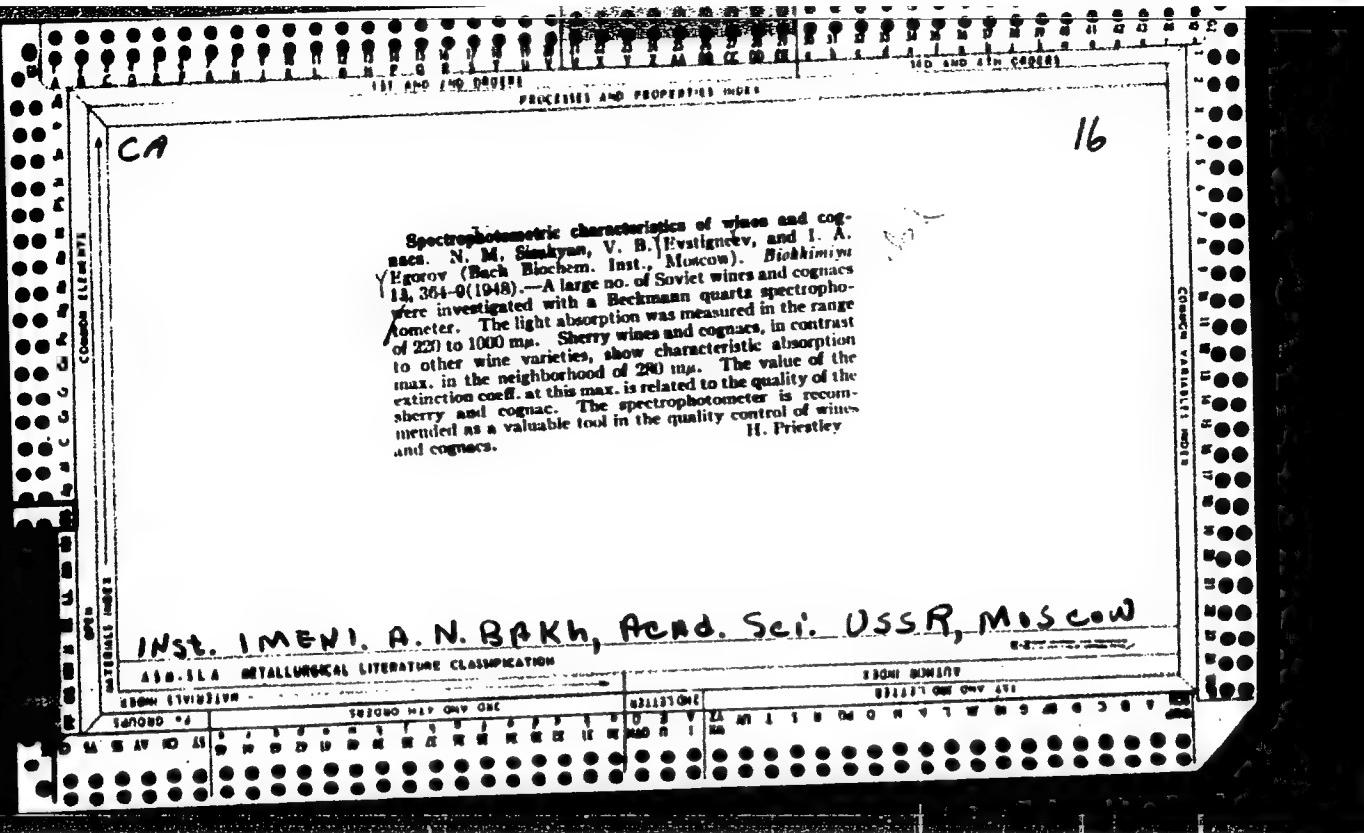
*CA**He*

Activity and condition of enzymes in plastids. N. M. Shchukina and A. M. Kobyskova (Bach Biochem. Inst., Moscow). Biokhimiya 13, 88-94 (1948). The enzymes invertase, amylase, and protease were observed in chloroplasts, chromoplasts, and leucoplasts. The enzyme activity depends on the origin of the plastid material as well as on its physical condition. In plants which store sugar invertase predominates over amylase; the reverse is true in plants which store starch. Most of the enzymes in the plastids are found in a stable adsorbed condition. On autolysis of the plastids, the enzymes go into solution. The more strongly the enzymes are adsorbed on the plastids, the less the enzyme activity prior to autolysis. The plastids can be regarded as a depot for biocatalysts. H. P.

Inst. of Biochem. inv. A. N. Bach, Academy of Sciences USSR, Moscow

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED												INDEXED											
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y



PA 54T60

SISAKYAN, N. M.

USSR/Medicine - Enzymes
Medicine - Leukocytes

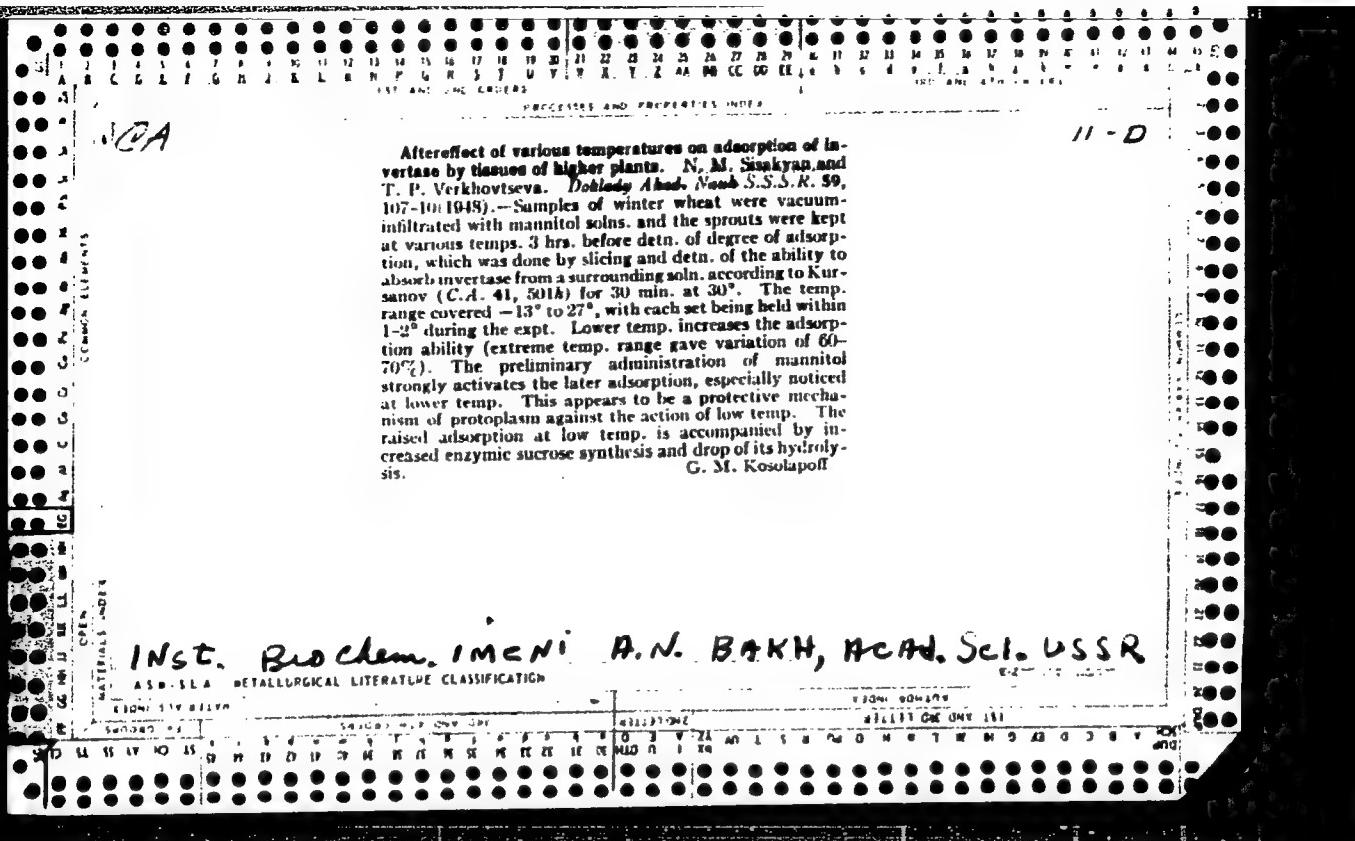
Jan/Feb 1948

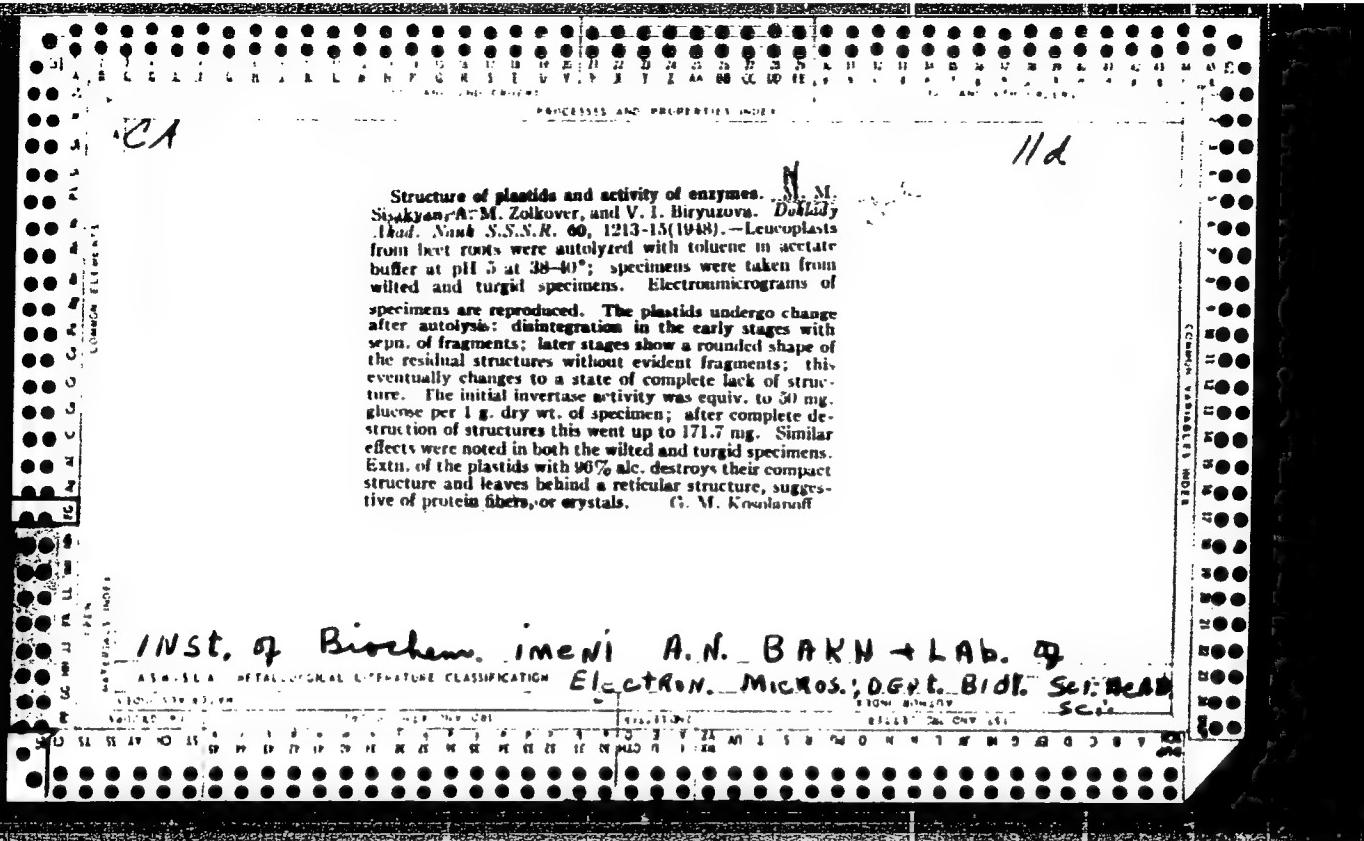
"The Activity and Composition of Ferments in Plastids"
N. M. Sisakyan, A. M. Kobyakova, Inst of Biochem imeni
A. N. Bakh, Acad Sci USSR, Moscow, 7 pp

"Biokhim" Vol XIII, No 1

Chloroplasts, chromoplasts, and leucocytes contain invertase, amylase, and protease. Degree of fermentative activity of plastid matter depends on its genesis and on the physiological condition of the plastid. Plastids can be considered as centers for biocatalysts which take part in the process of cellular conversion in cycles during ontogenesis. Submitted 1 Sep 1947.

54T60





22.6.25

Sov. Sci., ...

USSR/Medicine - Enzymes
Medicine - Autolysis

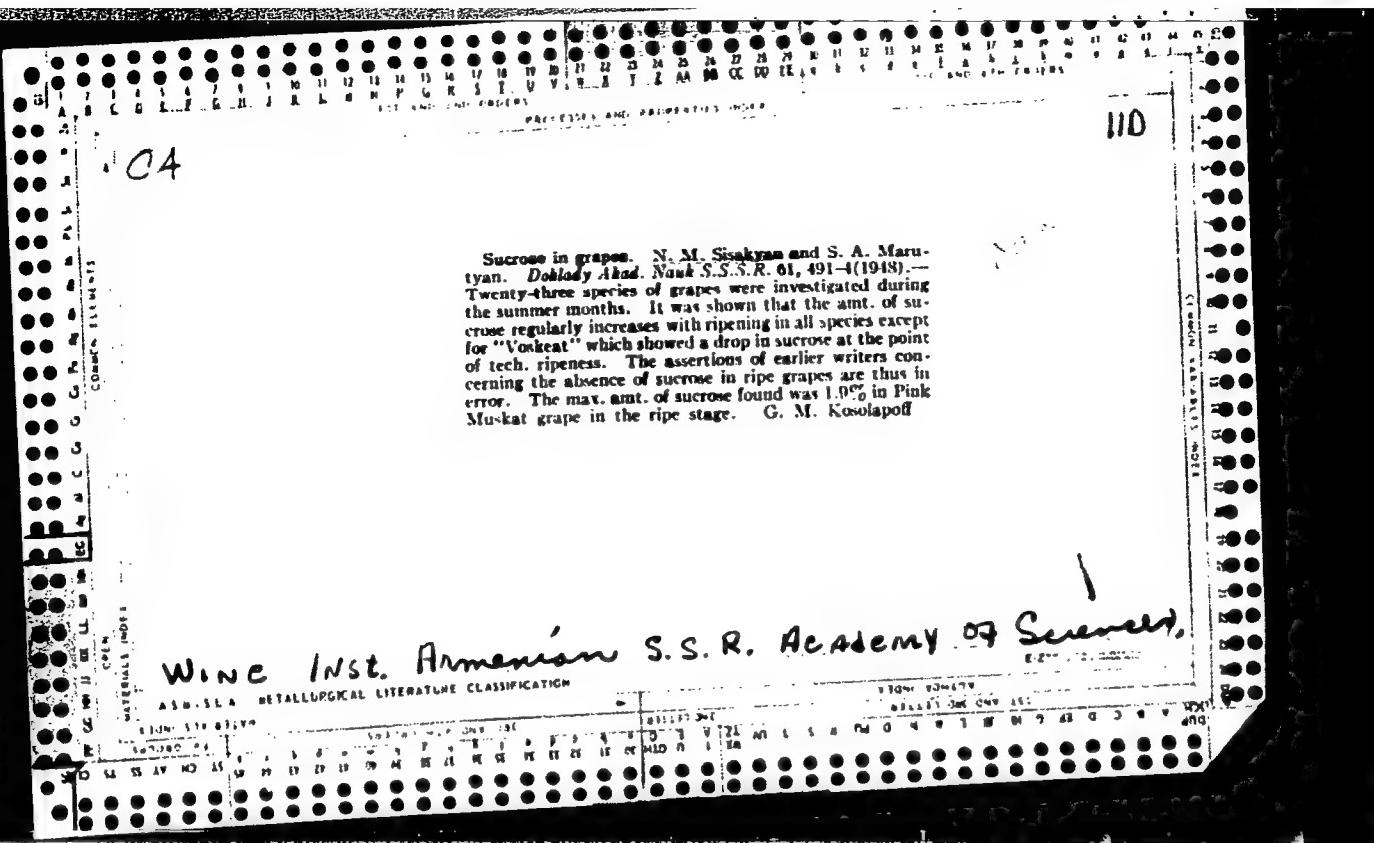
Jun 1948

"Structure of Plastids and Activity of Ferments,"
E. M. Sisakyan, A. M. Zolkover, V. I. Biryukova, Inst.
of Biochem imeni A. N. Bakh, Lab of Electronic Microsc.
Dept of Biol Sci, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 7

Discusses character of the change of structure of
plastids as result of their autolysis, and relations
of changed condition of structures to activity of
ferments included in plastids. Submitted Mar 1948.

76x83



USSR/Chemistry - Phosphorylases, Action of Aug 48
Chemistry - Plastids, Isolated

"Phosphorylase in Isolated Plastids," N. N.
Sleikyan, A. M. Kobykova, Inst Biochem imeni A. N.
Bain, Acad Sci USSR, 3 pp

"Dok Ak Nauk SSSR" Vol LXI, No 6

PA 35/49T8
Plastids were isolated according to previously
described method. Activity of phosphorylase was
measured during both decrease and increase of in-
organic phosphor, and consequently in presence of
starch and inorganic phosphor and glucose-1-phos-
phate, with phosphatase action suppressed by intro-
ducing NaF into the reaction mixture. Tables show.

35/49T8

USSR/Chemistry - Phosphorylases, Action
of (Contd) Aug 48

speed of starch phosphorylation under action of iso-
lated plastids, synthesis of starch under action of
phosphorylase of tuber potato's leucoplasts, activ-
ity of phosphorylase in chloroplasts of spinach
leaves before and after dialysis, and activity of
phosphorylase in various elements of plant tissues.
Submitted by Acad A. I. Oparin, 21 Jun 48.

35/49T8

USSR/Chemistry - Plastids, Isolated
Chemistry - Enzymes Sep 48

"Polyphenoxydase and Peroxidase Activity of
Isolated Plastide," N. M. Slesyan, Ye. B.
Kuvayeva, Inst Biochem imeni A. N. Bakh, Acad Sci
USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXII, No 1

PA 35/49T16
Tables show: activity of purpargalin ferments in
mg on one gm of dry substance with 20-minute ex-
posure, activity of ferments in leucoplasts of
sugar beets before and after autolysis in mg of
rhamnurulin with a recalculation for one gm of dry

35/49T16

USSR/Chemistry - Plastids, Isolated (Contd) Sep 48

substance, effect of osmotic concentration of the
surrounding solution on the desorption of ferments,
and effect of centrifuging on the desorption of
leucoplasts of beet sugars. Submitted by Acad A. I.
Oparin, 21 Jun 48.

35/49T16

CA

Inheritance of acquired biochemical factors in the seed progeny of vegetative hybrids. N. M. Sisakyan, I. E. Glushchenko, and N. A. Vasileva (A. N. Bakh Biochem. Inst., Moscow). *Problemy Biokhim. v Muzhikovskoj Biol. Akad. Nauk S.S.R.*, No. 1, p. 18 (1949).— Examn. of inheritance of biochem. indexe (sol. sugars, acidity, ascorbic acid content, carotenoids, thiamin and riboflavin content, nicotinic acid, and peroxidase and polyphenoloxidase activity) in the sexual and the vegetative graft hybrids among varieties of peach plants gave the following results. The seed progeny show the characteristics of both hybrid components. Vegetative hybrids show in numerous cases enhanced biochem. processes so that the progeny differ from both initial individuals, and the fruits of such progeny differ from the parent fruit in appearance as well as in chem. compn., thus showing inheritance of acquired characteristics. Voluminous tabulated data are supplied G. M. Kosolapoff

CH

HD

Enzyme systems of Michurin varieties of apple trees
B. A. Rubin and N. M. Sisakyan (A. N. Bakul Biochem
Inst., Moscow). *Problemy Biokhimi, i Michurinskoi Biol.*
Akad. Nauk SSSR, Sbornik, No. 1, 49 84 (1969).
Early-summer ripening varieties of apple have very low leaf-
peroxidase activity, while the late-summer varieties have
rather high activity increasing the later the season.
The highest leaf tiers show the highest peroxidase activity,
while polyphenoloxidase shows the reverse trend. Enzymes
regulating hydrolysis of saccharides to monosaccharides
increase this activity as the plant ages; the effect is strongest
in the early varieties of the plant. The non-frost-resistant
varieties show rapid inactivation of enzymic polysaccharide
synthesis at 0°, while the resistant forms lose the activity
only at -10°. Proteases also lose their synthetic ability
more readily in nonresistant forms than in resistant forms,
with concurrent increase of the hydrolytic reactions. Grafting
of functionally young mentor plants (according to
Michurin technique) can serve to improve the plant quality
by the influence on the above-cited enzyme systems. Pre-
liminary pos. results are given in tabular form. G. M. K.

CA

11D

Enzymic activity of hereditarily hard wheats changed to
hereditarily soft wheats. N. M. Sivakyan, V. K. Karapetyan,
and N. A. Vasileva (A.N. Bakh Biochem Inst., Moscow).
Problemy Biokhim., v. *Mikharinskoy Biokh. Akad.*
Nauk S.S.R., *Sbornik*, No. 1, 92-101 (1949); cf. C.I. 44,
5435g. --The dehydrogenase system of the altered wheat
becomes close to that of naturally soft wheat; similarly the
respiratory coeff. approaches the higher levels of the soft
wheat. Polyphenoloxidase and peroxidase activities re-
main approx. const., while β -amylase approaches the levels
found in soft wheat.
G. M. Kosolapoff

C.4

Direction of enzymic transformation of carbohydrates of hereditarily summer forms of wheat that had been altered to hereditarily winter forms. N. M. Sisakyan, V. K. Karapetyan, and A. M. Kobyakova (A. N. Bakhi Biochem. Inst., Moscow). *Problemy Biokhim. v Mchurinskoi Biol.*, 1946, No. 2, S.S.R., Sbornik, No. 1, 102-12 (1949), cf. C.I. 44, 3435g. - Summer forms of wheat that were transformed by training into the winter forms display a shift in the enzymic transformations of sucrose; the enzymic action undergoes the adaptation of its synthetic action to the lower temp. and the high level (relative) of synthetic action approaches that found in normal winter varieties of wheat. G. M. K.

SISAKYAN, N. M.

PA 54/49T6

~~CONFIDENTIAL~~

USSR/Biology
Academy of Sciences

Jun 49

"In the Department of Biological Sciences" 5 pp

"Vest Ak Nauk SSSR" No 6

Corr Mem N. M. Sisakyan's report, "Fermentative Activity of Protoplasmic Structures," described experimental studies in the structure of plastids. Discovered a whole series of ferments for the first time in plastids: peroxidase, polyphenoloxidase, cytochromoxidase, phosphorylase, protease, and dehydrase. Discovered amylase, invertase, protease, cytochromoxidase, and dehydrase in leucoplasts and chromoplasts.

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SISAKYAN, N. M.

PA 45/49T55

USSR/Medicine - Biochemistry
Medicine - Enzymes, Effect

Jan/Feb 49

"Fermenting Activity of Protoplasmic Structures,"
N. M. Sisakyan, A. M. Kobyakova, Inst of Biochem
imeni A. N. Bakh, Acad Sci USSR, Moscow, 7¹/₂ pp

"Biokhimiya" Vol XIV, No 1

Investigates activity of ferments in cell structures,
and stability of ad roption links of these ferments
with lipoproteid complex of plastids. Studies
ferments: invertase, phosphorylase, peroxidase and
polyphenoloxydase. States conclusions. Submitted
7 Jul 48.
[redacted]

45/49T55

DOCHETTER, N. Y.

PA 54/49T85

USSR/Medicine - Plastids
Medicine - Biochemistry

Jul 49

"Dehydrogenases of Plastids," N. M. Siskayan, K. G. Chamova, Inst of Biochem imeni A. N. Bakh, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXVII, No 2

Comparative study of dehydrogenasic activity in chloroplasts, chromoplasts and leucoplasts showed it was greatest in chloroplasts and smallest in leucoplasts. Activity in chromoplasts was not observable by the methods used. Submitted by Acad A. I. Oparin
21 May 49.

54/49T85